

Service Manual

Dolby NR-Equipped
Stereo Double Cassette Deck

Cassette Deck
RS-TR373

*
DOLBY B-C NR HX PRO



AR-1 MECHANISM SERIES

Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada.	
(E)	Europe.	
(EB)	Great Britain.	
(EG)	Germany and Italy.	
(GC)	Asia, Latin, America, Middle Near East and Africa.	
(GN)	Oceania.	

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SPECIFICATIONS/ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ
SELF-DIAGNOSTIC/САМОДИАГНОСТИКА
DISASSEMBLY INSTRUCTIONS/ПОРЯДОК РАЗБОРКИ
WRITING TO EEPROM/ЗАПИСЬ В ЕЕПРОМ
MEASUREMENTS AND ADJUSTMENTS/ИЗМЕРЕНИЯ И РЕГУЛИРОВКИ
WIRING CONNECTION DIAGRAM/СХЕМА СОЕДИНЕНИЙ
TERMINAL FUNCTION OF IC/ФУНКЦИОНАЛЬНОЕ НАЗНАЧЕНИЕ ВЫВОДОВ МИКРОСХЕМЫ
SCHEMATIC DIAGRAMS/ПРИНЦИПИАЛЬНЫЕ СХЕМЫ
BLOCK DIAGRAM/БЛОК-СХЕМА
TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES/ЦОКОЛЕВКА ИНТЕГРАЛЬНЫХ СХЕМ, ТРАНЗИСТОРОВ И ДИОДОВ
PACKAGING/УПАКОВКА
CABINET PARTS LOCATION/РАСПОЛОЖЕНИЕ ЧАСТЕЙ КОРПУСА
REPLACEMENT PARTS LIST/СПИСОК ЗАПАСНЫХ ЧАСТЕЙ
MECHANISM PARTS LOCATION/РАСПОЛОЖЕНИЕ МЕХАНИЧЕСКИХ ЧАСТЕЙ
REPLACEMENT PARTS LIST/СПИСОК ЗАПАСНЫХ ЧАСТЕЙ
RESISTORS AND CAPACITORS/РЕЗИСТОРЫ И КОНДЕНСАТОРЫ

Technics

SPECIFICATIONS

CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Heads	
DECK 1	Playback head (Permalloy) × 1
DECK 2	Recording/Playback head (Permalloy) × 1 Erasing head (Double-gap ferrite) × 1
Motors	
DECK 1	Capstan drive (DC servo motor) × 1 Reel table drive (DC motor) × 1
DECK 2	Capstan drive (DC servo motor) × 1 Reel table drive (DC motor) × 1
Tape speed	4.8 cm/sec. (1-7/8 ips)
Wow and flutter	0.1 % (WRMS)
For (E, EB, EG, GC, GN) areas	±0.2 % (DIN)
Fast forward and rewind times	Approx. 95 seconds with C-60 cassette tape
Frequency response (Dolby NR off)	
NORMAL	40 Hz – 15 kHz ± 3 dB
For (P, PC) areas	20 Hz – 17 kHz
For others	20 Hz – 16 kHz (DIN)
CrO ₂	40 Hz – 15 kHz ± 3 dB
For (P, PC) areas	20 Hz – 17 kHz
For others	20 Hz – 16 kHz (DIN)

METAL	40 Hz – 16 kHz ± 3 dB
For (P, PC) areas	20 Hz – 18 kHz
For others	20 Hz – 17 kHz (DIN)
S/N (Signal level = max recording level, CrO ₂ type tape)	
NR off	56 dB (A weighted)
Dolby B NR on	66 dB (A weighted)
Dolby C NR on	74 dB (A weighted)
Input sensitivity and impedance	
REC (IN)	100 mV/47 kΩ
Output voltage and impedance	
PLAY (OUT)	500 mV/500 Ω

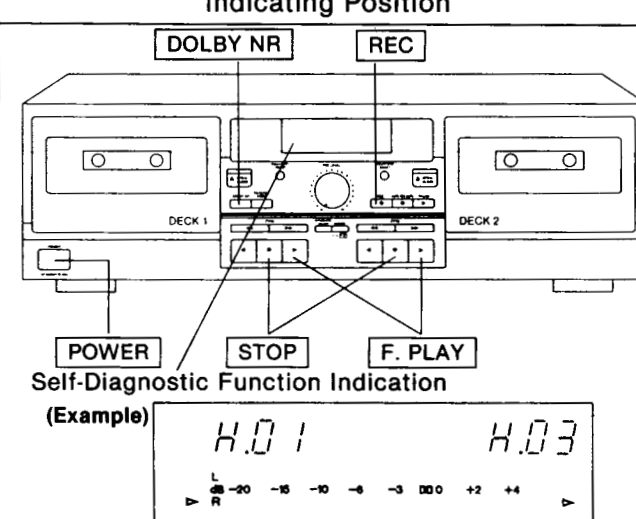
GENERAL

Power consumption	24 W
Power supply	
For (P, PC) areas	AC 60 Hz, 120 V
For (GC) area	AC 50/60 Hz, 110 V/127 V/220 V/240 V
For others	AC 50/60 Hz, 230 V – 240 V
Dimensions (W × H × D)	
	430 × 136 × 285 mm (16-15/16" × 5-5/16" × 11-7/32")
Weight	4.4 kg (9.7 lb.)

Note:

Design and specifications are subject to change without notice.
Weight and dimensions are approximate.

SELF-DIAGNOSTIC

Indicating Procedure	Indicating Position
<p>To indicate Self-Diagnostic Function</p> <ol style="list-style-type: none"> 1. Check both Deck 1 and 2 are empty (no cassette tape), then turn on the power. 2. Press and hold the DOLBY (NR) button (for more than 3 seconds), and also press the Deck 2 STOP (■) button for about 2 seconds until the level meter changes from constantly lit to blinking. 3. Insert a normal tape for Deck 2, either A or B side of which has the erase preventing piece folded. Then close the cassette holder. 4. Press the Deck 2 F. PLAY (▶) button and play the tape for more than 1 second, then press the STOP (■) button. 5. Insert a normal blank cassette tape for DECK 2, both A and B sides of which have the erase preventing pieces respectively, and close the cassette holder. 6. Press the REC (●) button. <p>This automatically makes Deck 2 perform the following operations.</p> <p>Record an eight second portion with no sound. → Record a 20 second portion off 400Hz test signal.</p> <p>↓</p> <p>TPS-REVIEW search mode ← Stop the unit</p> <p>(NOTE: The tape has to be taken up by playback for about 1 minute.)</p> <ol style="list-style-type: none"> 7. Insert a normal tape for Deck 1, either A or B side of which has the erase preventing piece folded. Then close the cassette holder. 8. Press the Deck 1 FF (▶▶) button. <p>This automatically makes Deck 1 Perform the following operations.</p> <p>FF mode (approx. 2 second) → REW mode (approx. 2 second) → Stop the unit</p> <ol style="list-style-type: none"> 9. Press the Deck 1 STOP (■) button to display the self-diagnostic results for Deck 1, and press the Deck 2 STOP (■) button to display the results for Deck 2. <p>When a fault occurs in Deck 1 and/or Deck 2, the FL display indicates the results of self-diagnostic tests. For multiple faults, the indication changes each time the STOP (■) button is pressed.</p> <ol style="list-style-type: none"> 10. If there is no fault, the counter display remains unchanged when the STOP (■) button is pressed. <p>To resume Ordinary Indication</p> <p>To return the display to normal mode, switch the power off and then back on again. To have the indication appear again, take the above-stated steps 1, 2 and 9.</p> <p>NOTE: The contents of the self-diagnostic mode are stored in memory. To clear the memory, press the STOP (■) button on Deck 2 for more than 6 seconds, until "CL" appears in the FL display.</p>	 <p>Self-Diagnostic Function Indication (Example)</p> <p>H.01 H.03</p> <p>L -20 -10 -5 -3 000 +2 +4 R</p>

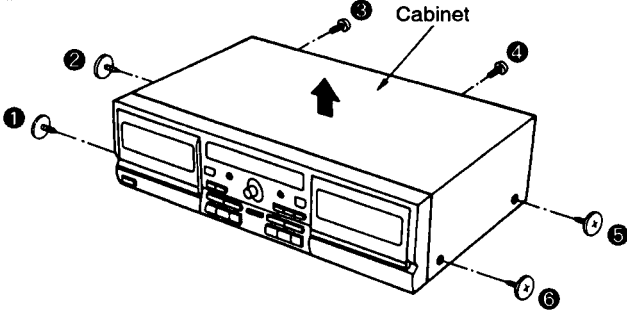
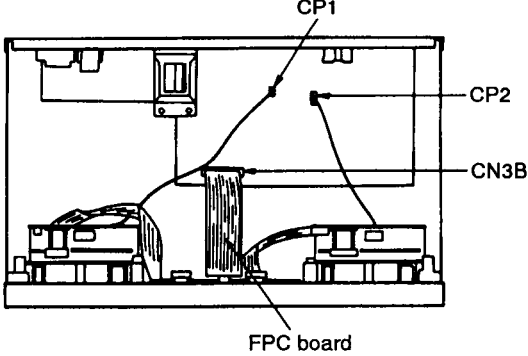
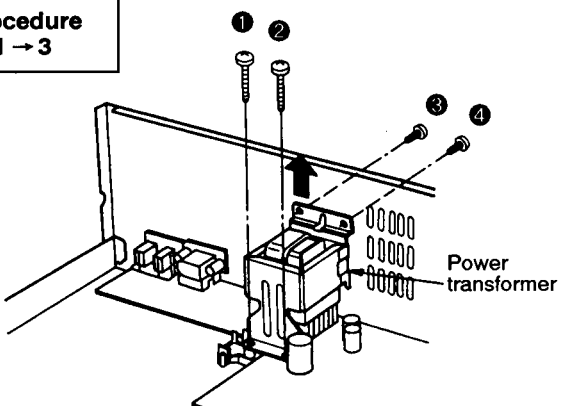
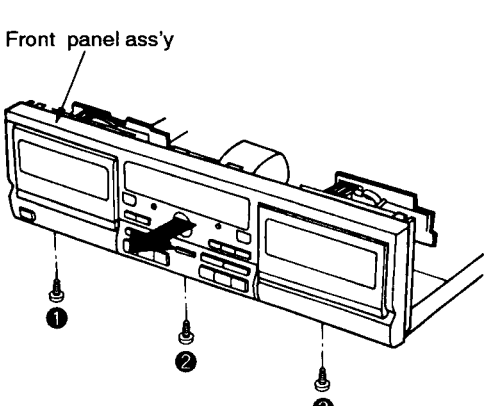
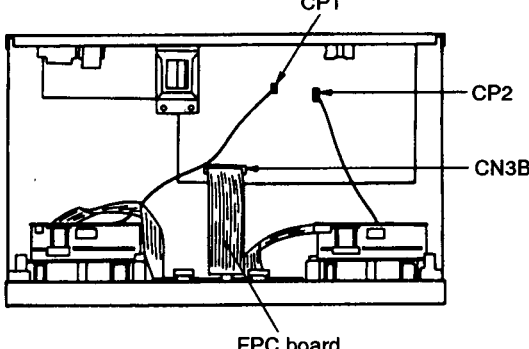
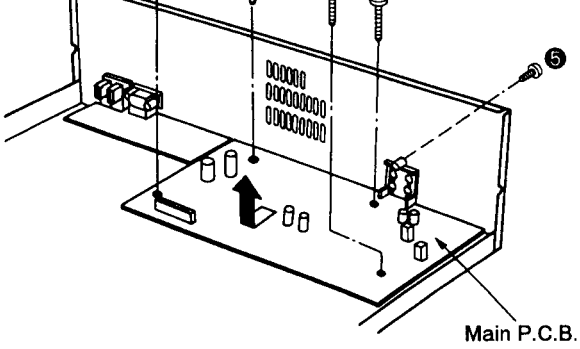
Indication Text

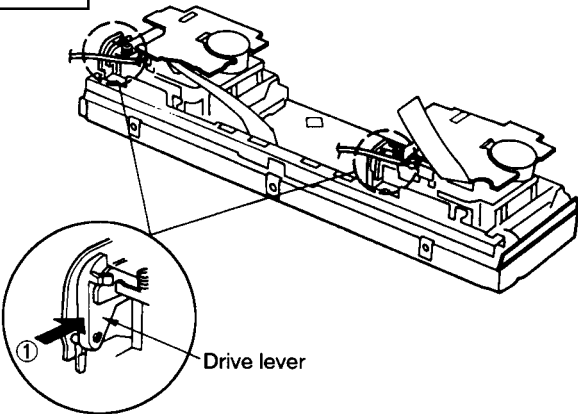
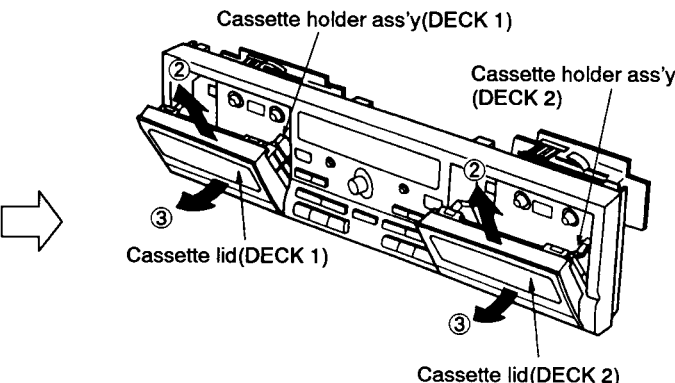
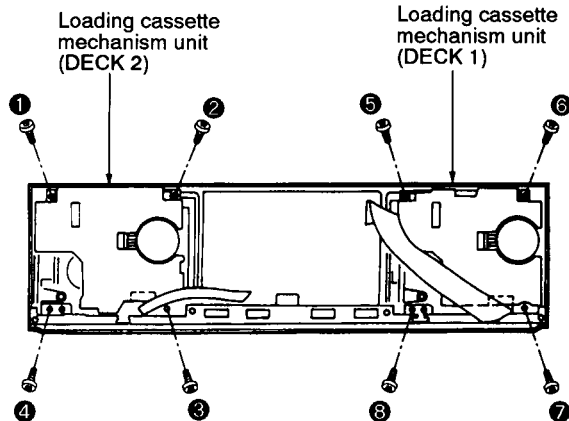
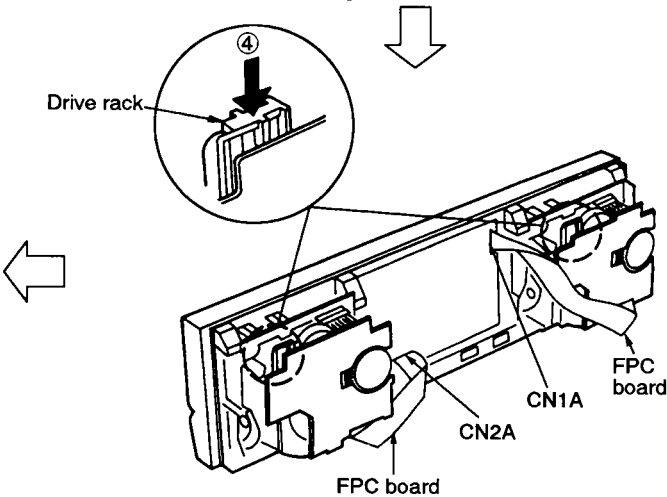
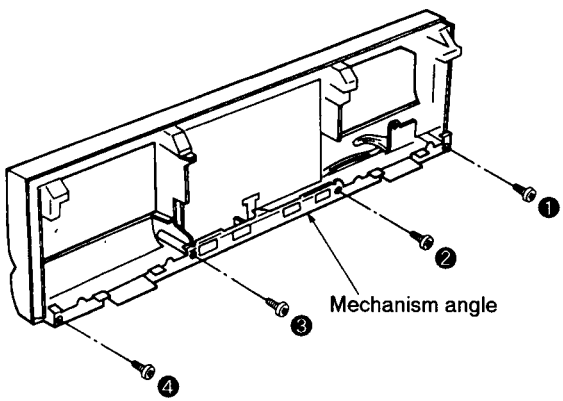
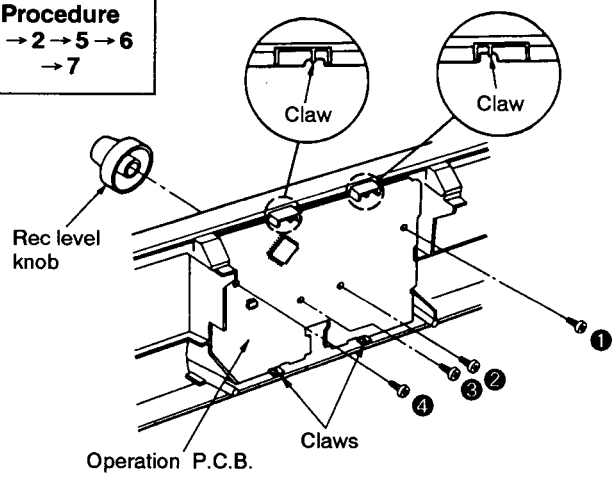
Symbol	Trouble	Remedy
H01	Irregular action of cassette mechanism. (Example) Pressing the FWD PLAY button results in REW PLAY action.	The cassette mechanism mode switch and plunger are defective. (Check and replace them.)
H02	No recording can be made, or the unit is placed in the recording mode though the erase preventing piece has been broken.	The erase preventing switch contacts improperly, or there is a shortcircuit. (Check and replace the switch.)
H03	Pressing the PLAY (▶) button fails to play the tape. Pressing the PLAY (▶) button causes the motor to rotate though no cassette tape is in.	The cassette half detect switch contacts improperly, or there is a shortcircuit. (Check and replace the switch.)
H04	The cassette holder will not open or close when the OPEN/CLOSE (▲) button is pressed.	The cassette holder open/close detect switch contacts improperly, or there is a shortcircuit. (Check and replace the switch.)
H05	Pressing the OPEN/CLOSE (▲) button causes the cassette holder to open after it has closed, and vice versa.	
H06	No treble is produced when a normal tape is played or recorded.	The auto tape select (CrO ₂) switch contacts improperly, or there is a shortcircuit. (Check and replace the switch.)
H07	Excessive treble is produced when a CrO ₂ /Metal tape is played, or the recorded treble is distorted and at a low level.	The automatic tape select (Metal) switch contacts improperly, or there is a shortcircuit. (Check and replace the switch.)
F01	When the PLAY (▶) button is pressed, the tape runs a little and stops soon.	The hall IC is defective and, as the result, reel pulse is out of order. (Check and replace the IC.)
F02	TPS dose not operate.	The playback IC is defective. (Check and replace the IC.)

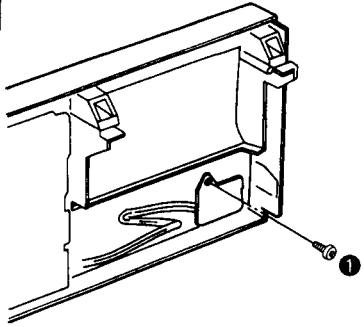
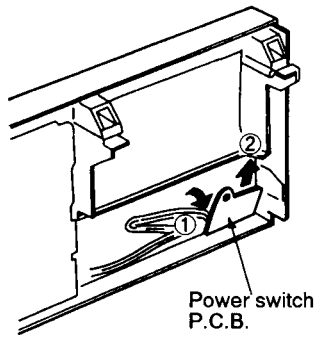
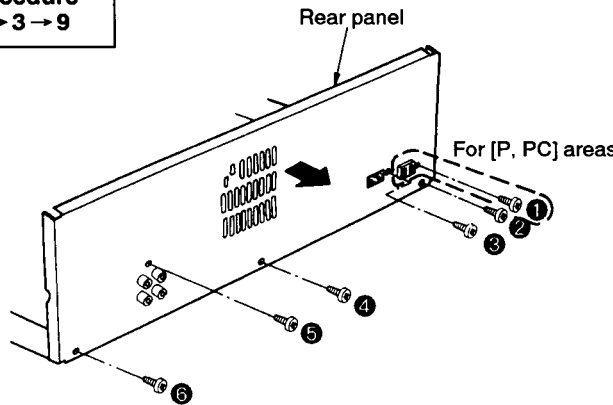
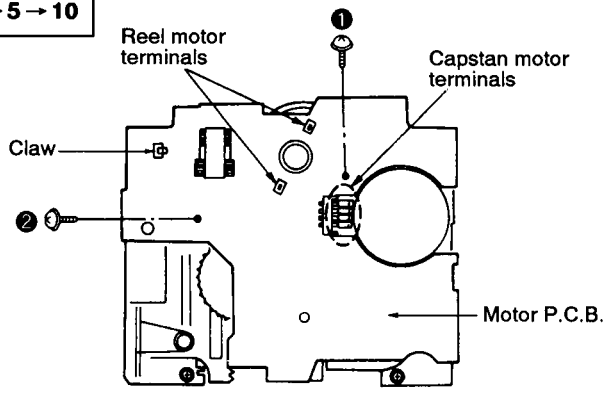
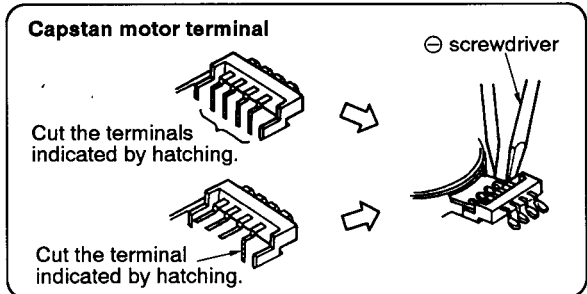
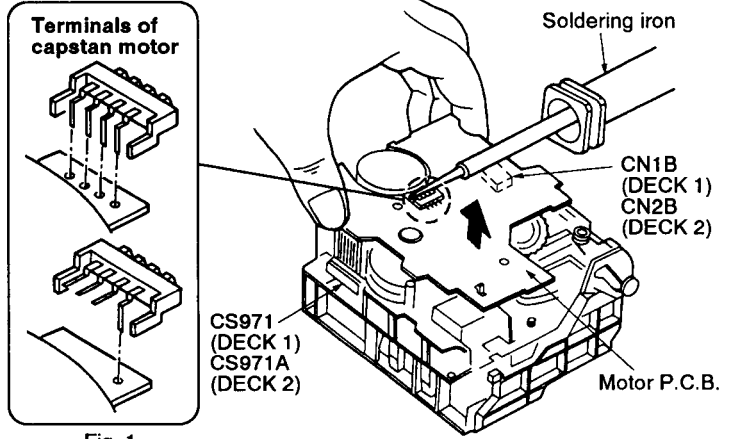
DISASSEMBLY INSTRUCTIONS

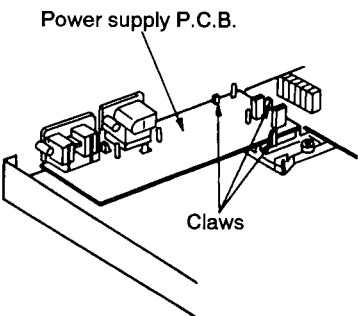
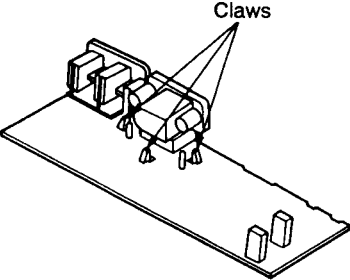
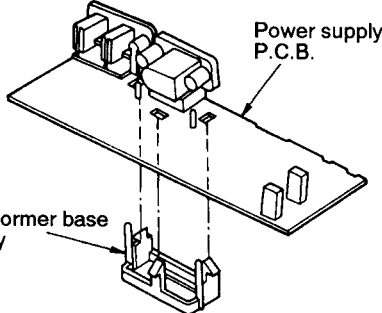
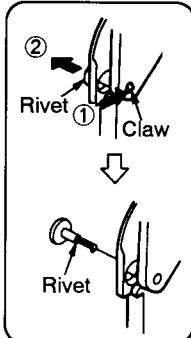
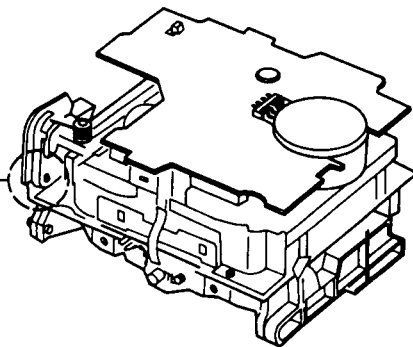
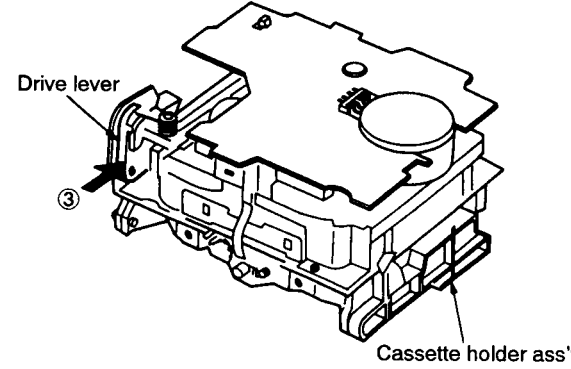
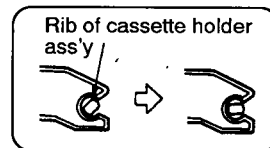
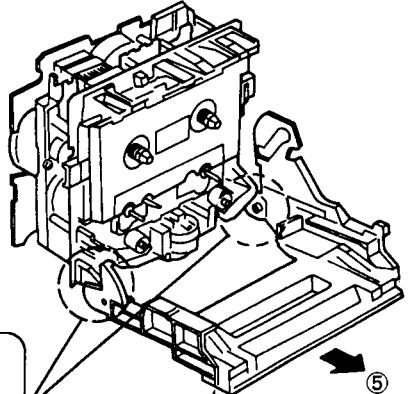
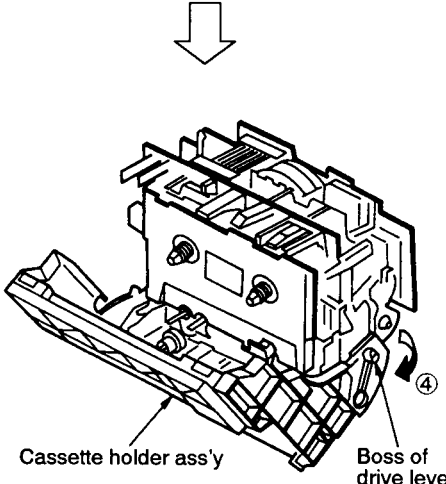
"ATTENTION SERVICER"

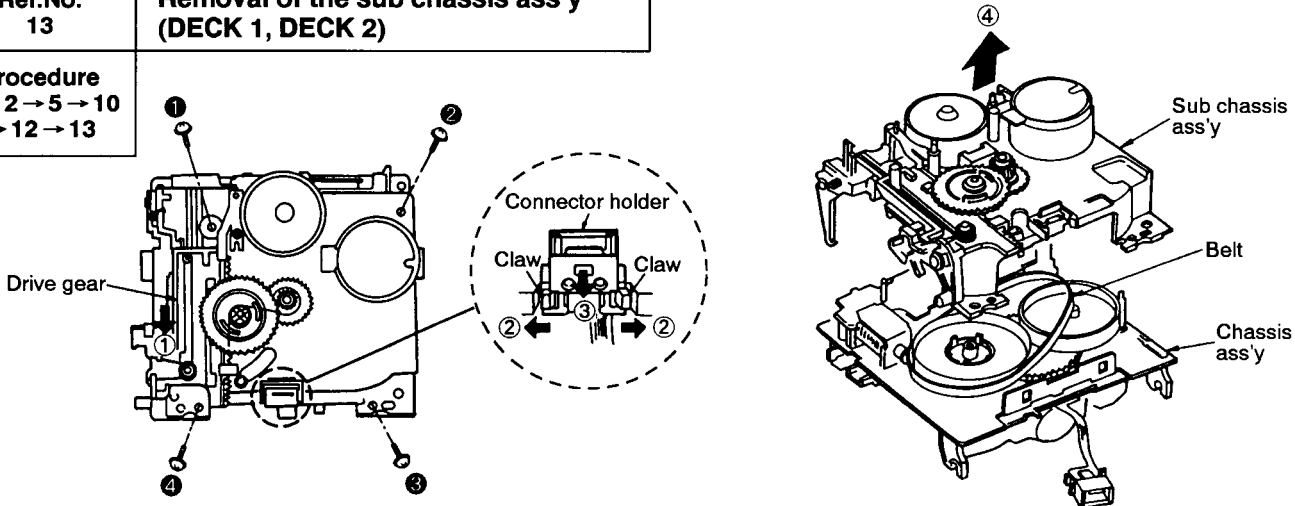
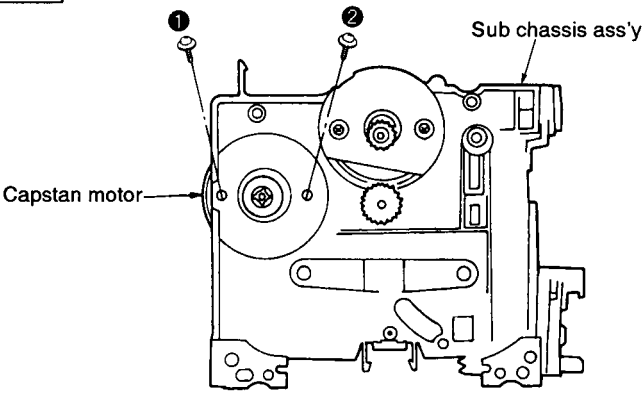
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref.No. 1	Removal of the cabinet	Ref.No. 2	Removal of the front panel ass'y
Procedure 1	 <p>1. Remove the 6 screws (① ~ ⑥). 2. Remove the cabinet in the direction of arrow.</p>	Procedure 1 → 2	 <p>1. Remove the 2 connectors (CP1, CP2). 2. Pull out the FPC board from connector (CN3B).</p>
Ref.No. 3	Removal of the power transformer		
Procedure 1 → 3	 <p>1. Remove the 4 screws (① ~ ④). 2. Pull the front power transformer in the direction of arrow.</p>		 <p>3. Remove the 3 screws (① ~ ③). 4. Remove the front panel ass'y in the direction of arrow.</p>
Ref.No. 4	Removal of the main P.C.B.		
Procedure 1 → 3 → 4	 <p>1. Remove the 2 connectors (CP1, CP2). 2. Pull out the FPC board from connector (CN3B).</p>		 <p>3. Remove the 5 screws (① ~ ⑤). 4. Remove the main P.C.B. in the direction of arrow.</p>

Ref.No. 5	Removal of the loading cassette mechanism units(DECK 1, DECK 2)		
Procedure 1 → 2 → 5			
			
1. Push the drive lever in the direction of arrow ①, and open the cassette holder ass'y.		2. Lift the cassette lid in the direction of arrow ②, and remove it in the direction of arrow ③.	
			
5. Remove the 8 screws(① ~ ⑧).		3. Push the drive rack in the direction of arrow ④, and close the cassette holder ass'y.	
		4. Pull out the FPC board from connectors(CN1A, CN2A).	
Ref.No. 6	Removal of the mechanism angle	Ref.No. 7	Removal of the operation P.C.B.
Procedure 1 → 2 → 5 → 6	Procedure 1 → 2 → 5 → 6 → 7		
			
• Remove the 4 screws(① ~ ④).		1. Pull out the rec level knob. 2. Remove the 4 screws(① ~ ④). 3. Release the 4 claws.	

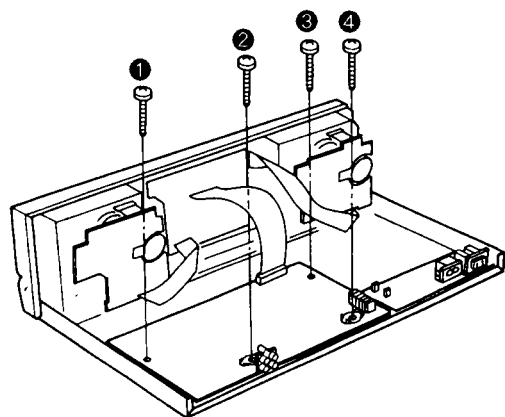
Ref.No. 8	Removal of the power switch P.C.B.		
Procedure 1 → 2 → 5 → 6 → 8			
		 <p>Power switch P.C.B.</p>	
1. Remove the 1 screw(①).		2. Tilt the power switch P.C.B. in the direction of arrow ①, and then remove it in the direction of arrow ②.	
Ref.No. 9	Removal of the rear panel	Ref.No. 10	Removal of the motor P.C.B. (DECK 1, DECK 2)
Procedure 1 → 3 → 9	Procedure 1 → 2 → 5 → 10		
 <p>Rear panel</p> <p>For [P, PC] areas.</p>		 <p>Reel motor terminals</p> <p>Capstan motor terminals</p> <p>Claw</p> <p>Motor P.C.B.</p>	
<p>1. Remove the 6 screws(① ~ ⑥). For [P, PC] areas.</p> <p>2. Remove the 5 screws(② ~ ⑥). For [E, EB, EG, GC, GN] areas.</p> <p>3. Remove the rear panel in the direction of arrow.</p>		<p>1. Remove the 2 screws(①, ②).</p> <p>2. Unsolder the reel motor and capstan motor terminals.</p> <p>3. Remove the 1 claw and have the P.C.B. rise a little.</p>	
<p>■ The difference types of capstan motor terminal are used for the units. When assembling/reassembling, refer to the Fig. 1 and Fig. 2.</p> <p>※ Notice for mounting the motor P.C.B.</p> <p>1. Cut the bent terminal of capstan motor with a nipper.</p> <p>2. Solder while pressing the part with a ⊖ screwdriver or an equivalent tool.</p>			
 <p>Capstan motor terminal</p> <p>⊖ screwdriver</p> <p>Cut the terminals indicated by hatching.</p> <p>Cut the terminal indicated by hatching.</p>		 <p>Terminals of capstan motor</p> <p>Soldering iron</p> <p>CN1B (DECK 1) CN2B (DECK 2)</p> <p>CS971 (DECK 1) CS971A (DECK 2)</p> <p>Motor P.C.B.</p>	
Fig. 2		Fig. 1	
		<p>4. Putting a soldering iron securely on the capstan motor terminal and raising the motor P.C.B. in the direction of arrow, unsolder connected part.</p> <p>Note) When removing the motor P.C.B., pull out the P.C.B. severely because the connectors(CN1B, CN2B, CS971, CS971A) are connected.</p>	

Ref.No. 11	Removal of the power supply P.C.B.	
Procedure 1 → 3 → 9 → 11		
 <p>Power supply P.C.B.</p> <p>Claws</p>	 <p>Claws</p>	 <p>Power supply P.C.B.</p> <p>Transformer base 1 ass'y</p>
1. Release the 3 claws, and then remove the power supply P.C.B.		2. Release the 3 claws, and then remove the transformer base 1 ass'y.
Ref.No. 12	Removal of the cassette holder ass'y (DECK 1, DECK 2)	
Procedure 1 → 2 → 5 → 12		
 <p>②</p> <p>Rivet</p> <p>①</p> <p>Claw</p> <p>Rivet</p>		 <p>Drive lever</p> <p>③</p> <p>Cassette holder ass'y</p>
1. Pull out the rivet in the direction of arrow ②, while pressing the claw in the direction of arrow ①.		2. Push the drive lever in the direction of arrow ③, and open the cassette holder ass'y.
 <p>Rib of cassette holder ass'y</p> <p>⑤</p> <p>Cassette holder ass'y</p> <p>Fig. 1</p>		 <p>④</p> <p>Cassette holder ass'y</p> <p>Boss of drive lever</p>
4. Open the cassette holder ass'y so that the rib of the cassette holder ass'y is located to the position as shown in Fig.1, and then pull out it in the direction of arrow ⑤.		3. Operate the cassette holder ass'y in the direction of arrow ④, and then remove it from the boss of drive lever.

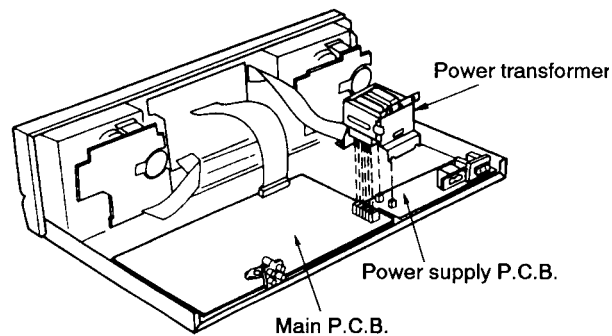
Ref.No. 13	Removal of the sub chassis ass'y (DECK 1, DECK 2)	 <p>1. Push the drive gear in the direction of arrow ①.</p> <p>2. Remove the 4 screws (① ~ ④).</p> <p>3. Release the 2 claws in the direction of arrow ②, and then remove the connector holder in the direction of arrow ③.</p> <p>4. Remove the sub chassis ass'y in the direction of arrow ④.</p> <p>5. Remove the belt.</p> <p>Note: Care must be taken to remove the sub chassis ass'y with tweezers that the belt is not applied with grease.</p>
Procedure 1 → 2 → 5 → 10 → 12 → 13		
Ref.No. 14	Removal of the capstan motor (DECK 1, DECK 2)	
Procedure 1 → 2 → 5 → 10 → 12 → 13 → 14	<p>• Remove the 2 screws (①, ②).</p>	

■ HOW TO CHECK THE MAIN P.C.B.

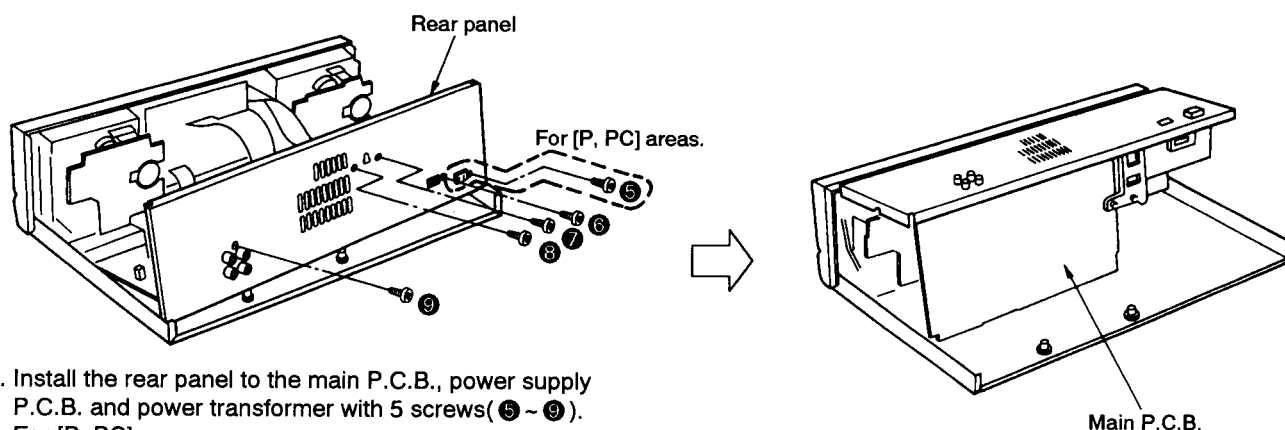
1. Remove the cabinet. (See Ref. No.1 of the disassembly instructions.)
2. Remove the power transformer. (See Ref. No.3 of the disassembly instructions.)
3. Remove the rear panel. (See Ref. No.9 of the disassembly instructions.)



4. Remove the 4 screws (① ~ ④).



5. Install the power transformer on the main P.C.B. and power supply P.C.B.

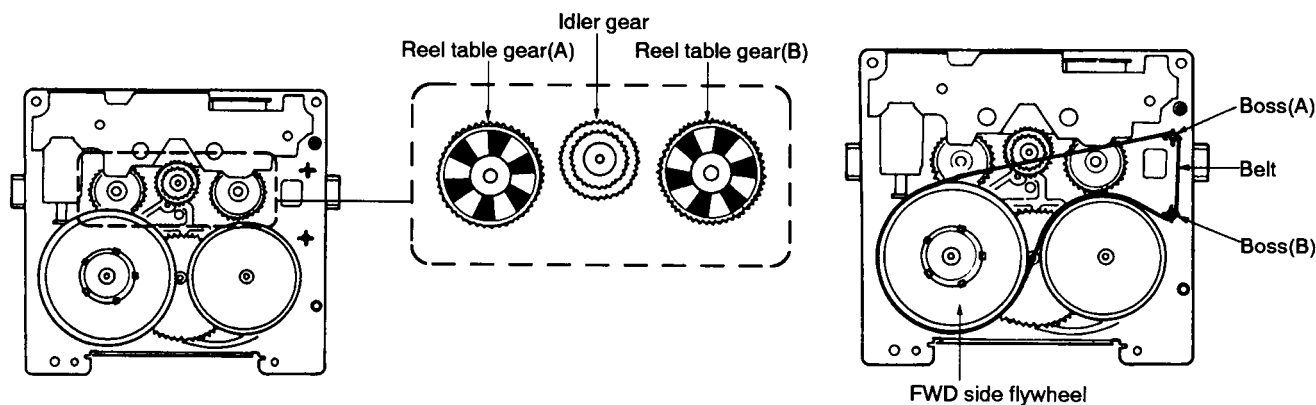


6. Install the rear panel to the main P.C.B., power supply P.C.B. and power transformer with 5 screws (5 ~ 9). For [P, PC] areas.

7. Install the rear panel to the main P.C.B., power supply P.C.B. and power transformer with 4 screws (6 ~ 9). For [E, EB, EG, GC, GN] areas.

8. When checking the solder surfaces of main P.C.B. and replacing the parts, do as show.

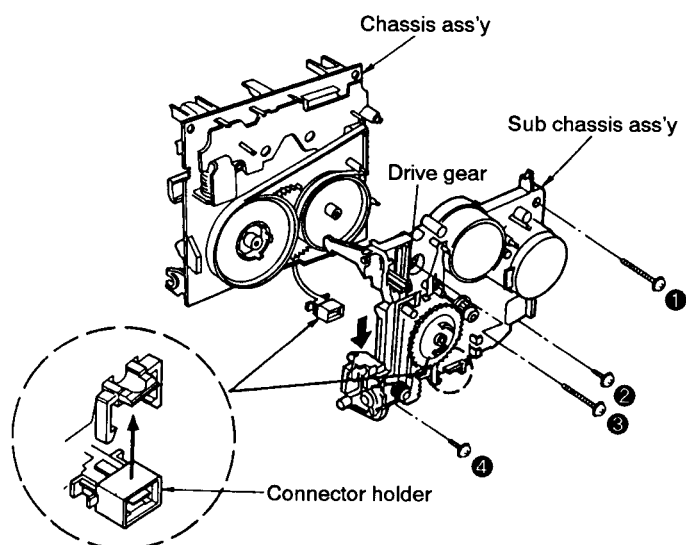
■ INSTALLATION OF THE SUB CHASSIS ASS'Y



1. Position the idler gear in the between reel table gear(A) and(B). (Mechanism stop position)

2. Temporarily install the belt to the FWD side flywheel, boss(A) and boss(B).

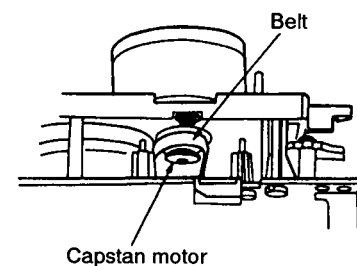
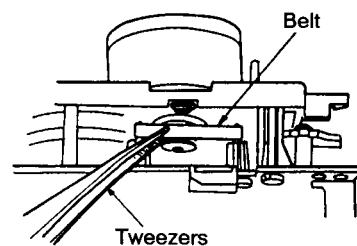
Note: Care must be taken to install the belt with tweezers that the belt is not applied with grease.



3. Push the drive gear in the direction of arrow.

4. Install the sub chassis ass'y to the chassis ass'y with 4 screws (1 ~ 4).

5. Install the connector holder.



6. Install the belt to the capstan motor using the tweezers.

■ INSTALLATION OF THE CASSETTE HOLDER ASS'Y

1. Tilt the rib of cassette holder ass'y at the angle as shown in Fig.1, and then force the cassette holder ass'y to the loading cassette mechanism unit.

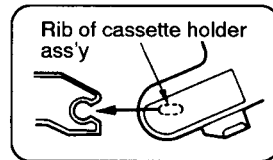
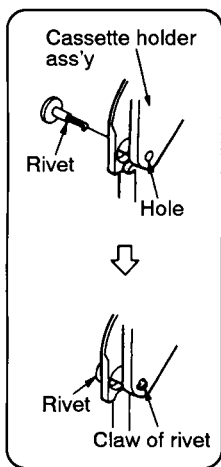
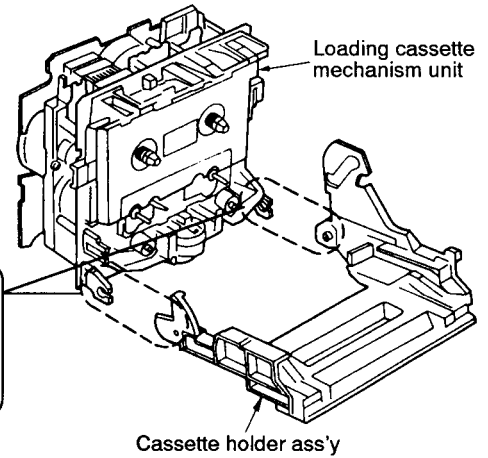
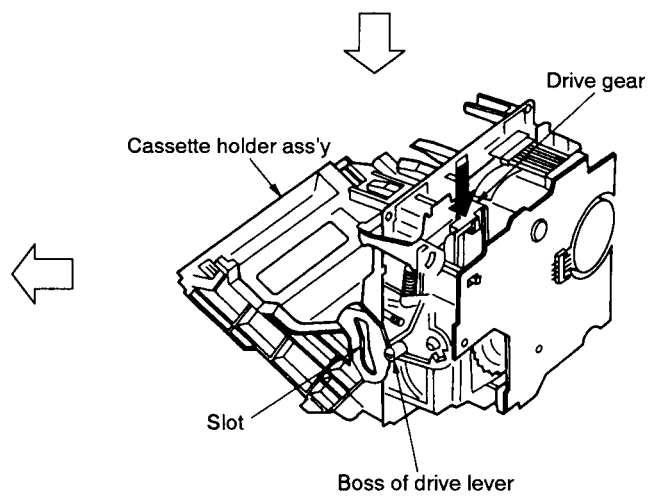


Fig. 1



4. Insert the rivet to the hole of cassette holder ass'y.
※ Make sure the claw of rivet is positioned in the hole.



2. Push the drive gear in the direction of arrow.
3. Align the boss of drive lever with the slot of cassette holder ass'y.

■ WRITING TO EEPROM

This unit is equipped with EEPROM memory that stores a variety of design data and performance data such as playback gain, bias value, recording gain, recording equalization, etc., which was programmed at the factory.

This EEPROM memory is capable of being read and written to more than 100,000 times. To illustrate this, if one ATC operation is performed every hour continuously every day for ten years, it would still be possible to successfully read and write with the EEPROM.

Data is actually written in this EEPROM only when ATC is actuated or when power supply is turned on or off.

Since it hardly breaks down, there will scarcely occur such a trouble as to require replacement.

Measurement Condition

- Recording-level control; Maximum
- Reverse-mode selector switch; \rightleftharpoons
- Tape-to-tape recording-speed switch; Off
- Dolby NR switch; Off
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$)

Measuring instrument

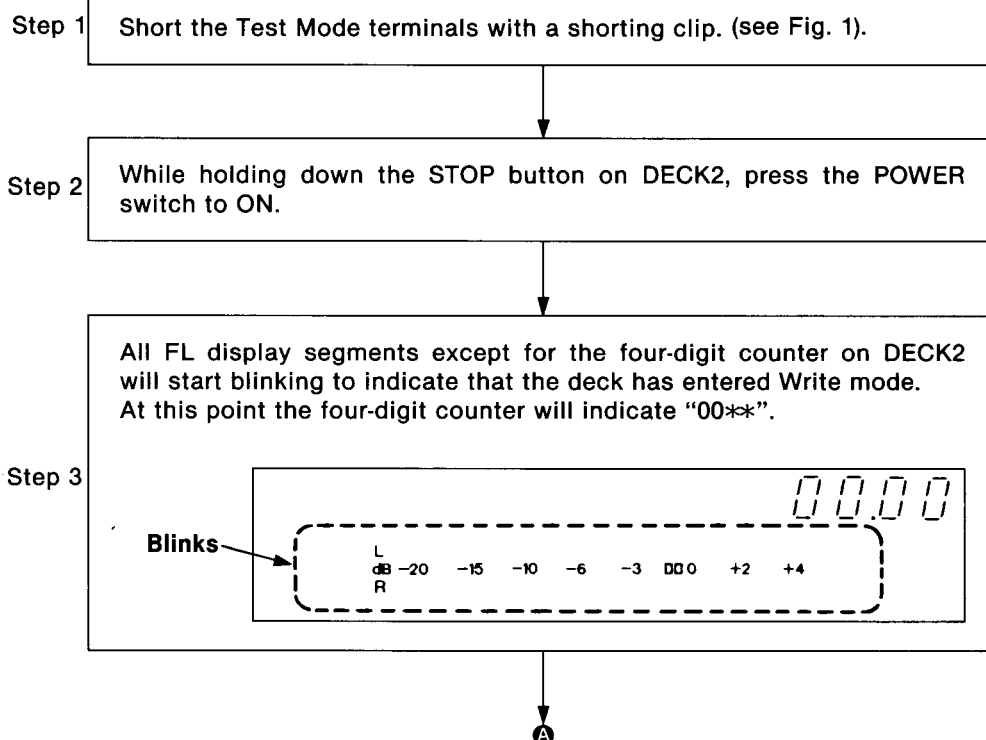
- EVM (Electronic Voltmeter)
- Oscilloscope
- AF oscillator
- ATT (Attenuator)
- Resistor (600Ω)

NOTE: Before adjustment, be sure to set the AF oscillator output level to 0dB (1 kHz): 1V

Test tape

- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall gain adjustment and Overall frequency response
- Normal reference blank tape; QZZCRA
- CrO₂ reference blank tape; QZZCRX1
- Metal reference blank tape; QZZCRZ5

NOTE: Step 2 to step 7 only has to be done after exchange of the EEPROM.



OPERATION P.C.B.

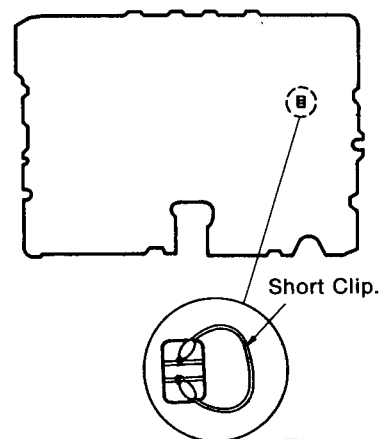


Fig. 1

Notes:

- The test mode terminals on main P.C.B. should be shorted with a short clip as shown above figure.
- After the adjustment items disconnect the short clip.

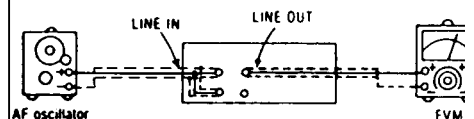
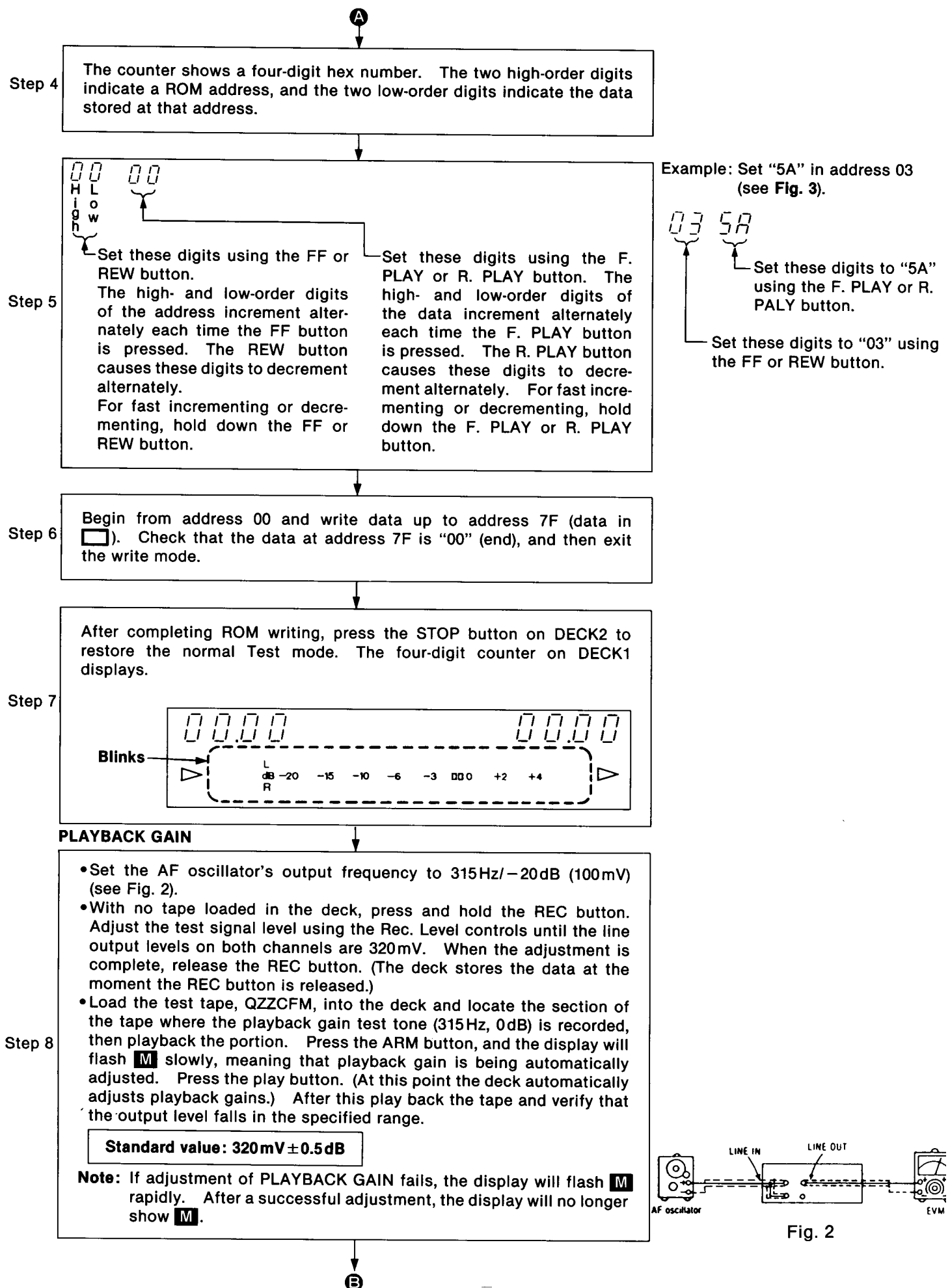


Fig. 2

**INITIAL SETTING UP FOR OVERALL GAIN
AND OVERALL FREQUENCY RESPONSE**

Step 9

- Load a Normal blank test tape (QZZCRA) into the deck under test. Press the ARM button, then the REC button. The display will flash **M** slowly. (At this point the deck automatically adjusts the overall gain and frequency response.)
 - After the above setting, the overall gain for selection of CrO₂ and Metal tape will be automatically set by the ROM and stored in the ROM.
- Note:** If adjustment of OVERALL GAIN or OVERALL FREQUENCY RESPONSE fails, the display will flash **M** rapidly.
After a successful adjustment, the display will no longer show **M**.

Step 10

Remove the shorting clip from the Test Mode terminals. The FL display will stop blinking.

Note: If the microprocessor is replaced, it is not necessary to replace (or write data to) the EEPROM.

• **EEPROM MAP**

High Low	0	1	2	3	4	5	6	7
0	00	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—
3	5A	—	—	—	—	—	—	—
4	—	—	—	—	—	68	84	90
5	—	—	—	—	—	78	60	60
6	—	—	—	—	—	38	30	18
7	—	—	—	—	—	64	68	78
8	—	—	—	—	—	A8	B0	8C
9	—	—	9A	AA	94	50	70	68
A	—	—	6A	0F	—	80	80	80
B	—	—	70	2B	—	40	50	A0
C	—	—	50	12	—	B8	B4	B8
D	—	—	72	07	—	66	5E	40
E	—	—	4C	FB	—	70	74	02
F	—	—	55	F5	—	47	47	00

Fig. 3

Note: At an address with no data value indicated (e.g. 01 → —), the ROM operates normally irrespective of the kind of the data supplied.

MEASUREMENTS AND ADJUSTMENTS

Measurement Condition

- Recording-level control; Maximum
- Reverse-mode selector switch; \rightleftharpoons
- Tape-to-tape recording-speed switch; Off
- Dolby NR switch; Off

- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$)

Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

- ATT (Attenuator)
- DC voltmeter
- Resistor (600Ω)

NOTE: Before adjustment, be sure to set the AF oscillator output level to 0dB (1kHz): 1V

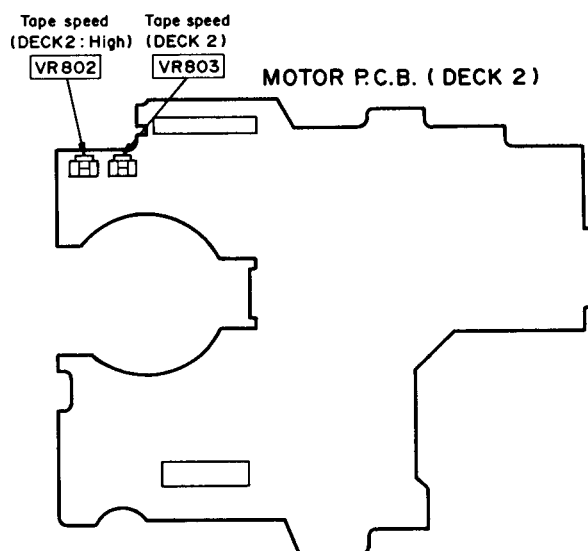
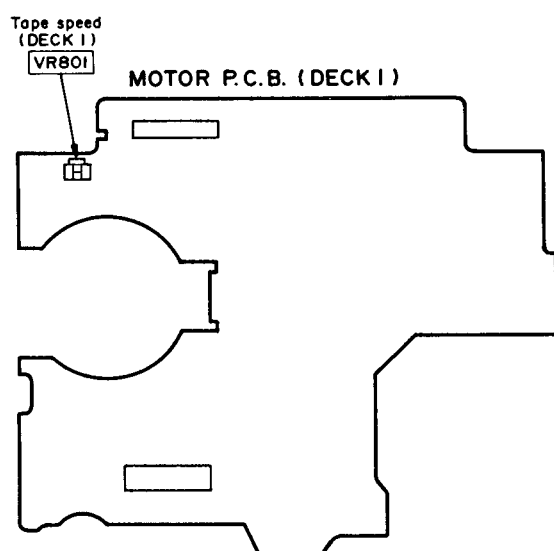
Test tape

- Head azimuth adjustment (8kHz, -20dB)
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB)
- Playback gain adjustment (315Hz, 0dB)

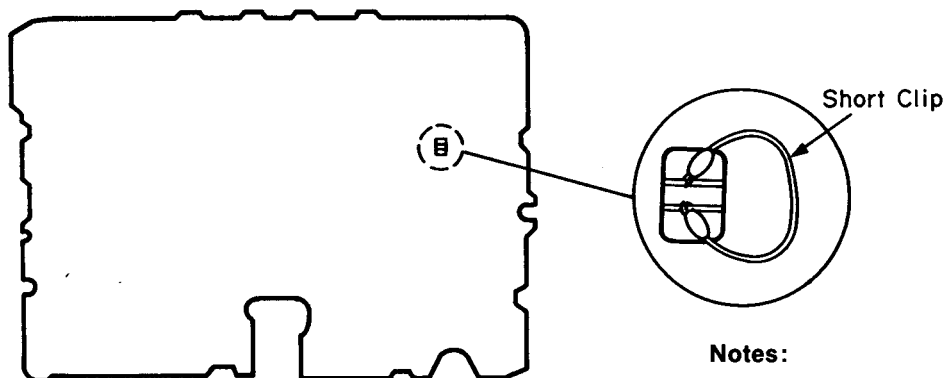
; QZZCFM

- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Overall gain adjustment and Overall frequency response
Normal reference blank tape; QZZCRA
CrO₂ reference blank tape; QZZCRX1
Metal reference blank tape; QZZCRZ5

Adjustment Points



OPERATION P.C.B.

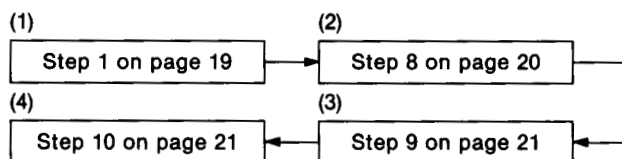


Notes:

- The test mode terminals on mechanism control P.C.B. should be shorted with a short clip as shown above figure.
- After the adjustment items disconnect the short clip.

HEAD REPLACEMENT

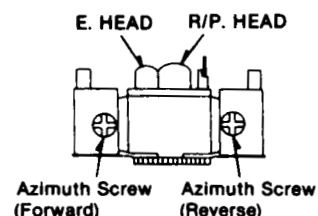
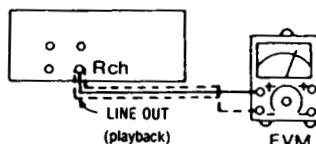
When replacing the R/P head or E head, adjust the head azimuth (erase head with small screw stop does not need adjustment) then start the EEPROM adjustment in the following sequence.



(The adjustment is necessary because the playback gain, the overall gain, and the overall frequency response are changed by the head replacement.)

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8kHz, -20dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the output of the R-CH are maximized.
2. Perform the same adjustment in the play mode.
3. Repeat the same check in reverse play mode.
4. After the adjustment, apply screwlock to the azimuth adjusting screw.

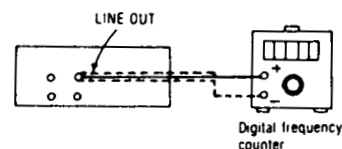


TAPE SPEED ADJUSTMENT (DECK 1/2)

Normal speed

1. Playback the middle portion of the test tape (QZZCWAT).
2. Short the test terminal.
3. Adjust Deck 1 = VR801 and Deck 2 = VR803 so that the output is within the standard value.

Standard value: 3000 ± 15 Hz (NORMAL speed)



High speed [Set the unit to forward (FWD) mode.]

4. Press the tape-to-tape recording-speed selector switch (X2) button. This will set the high speed mode.
5. Playback the middle portion on the test tape (QZZCWAT).
6. At that time, check if the output from DECK 1 is within the standard value.

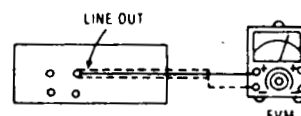
Standard value: 6000 ± 600 Hz (HIGH speed)

7. Adjust VR802 so that the output frequency of DECK 2 is within ± 30 Hz for the value of the output frequency of DECK 1.
8. Release the test terminal.

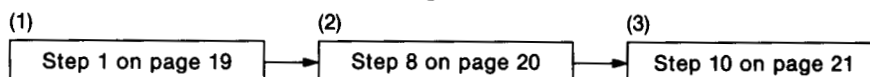
PLAYBACK GAIN MEASUREMENT (DECK 1/2)

1. Load the test tape (QZZCFM) into the deck and locate the part where the playback gain test tone (315Hz, 0dB) is recorded. After this, play back the tape and verify that the output level falls in the specified range.

Standard value: $320\text{mV} \pm 0.5\text{dB}$



2. If outside the standard value, data in EEPROM should be written again by taking the following procedure and there thereafter section 1 should be carried out again.



PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315Hz, 12.5kHz~63Hz, -20dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in Fig. 4 for both L-CH and R-CH.

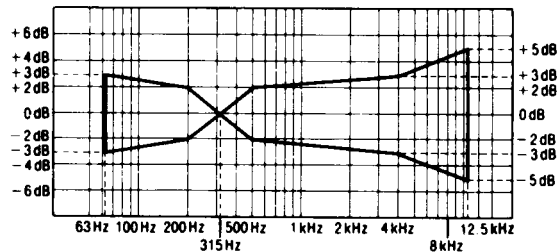
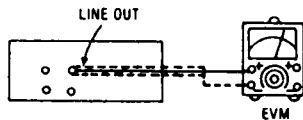
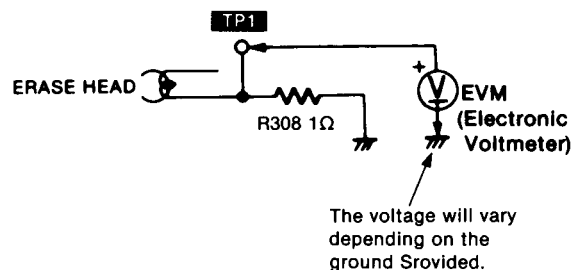


Fig. 4

ERASE CURRENT ADJUSTMENT

1. With no tape loaded in the deck, press the Record button.
2. Check if the output at this time between the erase current confirmation point TP1 and GND (chassis) is within the standard value.

Standard value: 175 ± 15 mA (Metal)
EVM Reading: 175 ± 15 mV (L303 case → TP1)



CONFIRMATION OF THE OVERALL GAIN AND OVERALL FREQUENCY RESPONSE

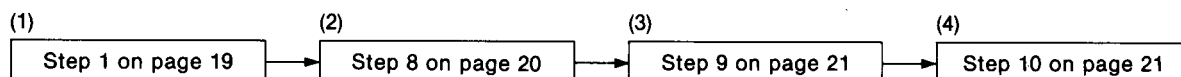
1. In the Record Pause mode, load a normal blank tape (QZZCRA) into the deck, and apply the reference input signal (1kHz, -24dB) to the Rec. input. Adjust the output to 320mV with the attenuator, and start recording.
2. While playing back the reference signal just recorded, verify that the output level falls in the following range.

Standard value: $320 \text{ mV} \pm 0.5 \text{ dB}$

3. Afterward, apply a signal (frequency at the measured point in the range from 50Hz to 10kHz), whose level is 20dB lower than the reference signal level (1kHz, -24dB=approx. 63mV), to the Rec. input. Then start recording with a normal blank tape (QZZCRA).
4. Play back the test signals just recorded and verify that the levels at the test frequencies fall in the ranges specified in Fig. 5 with respect to the reference signal level.
5. Repeat steps 3 and 4 above for CrO₂ blank test tape (QZZCRX1) and Metal blank test tape (QZZCRZ5), in these cases raising the upper end of the test signal frequency range to 12.5kHz. Verify that the signal levels at the test frequencies fall in the ranges specified in Fig. 6 with respect to the reference signal level.

Steps 1 through 2 above are concerned with overall gain; steps 3 through 5 pertain to overall frequency response.

6. If outside the standard value, data in EEPROM should be written again by taking the following procedure and thereafter section 1-5 should be carried out again.



Normal Overall frequency response chart (NR OUT)

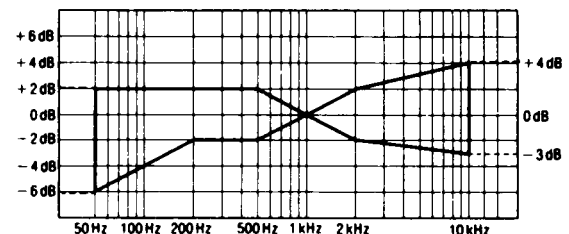


Fig. 5

CrO₂ Metal Overall frequency response chart (NR OUT)

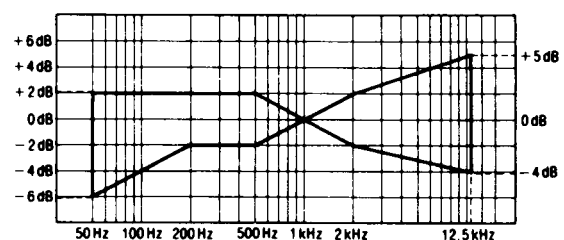
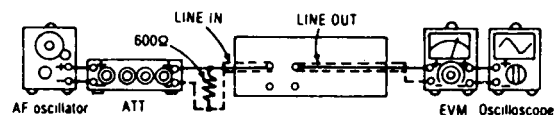
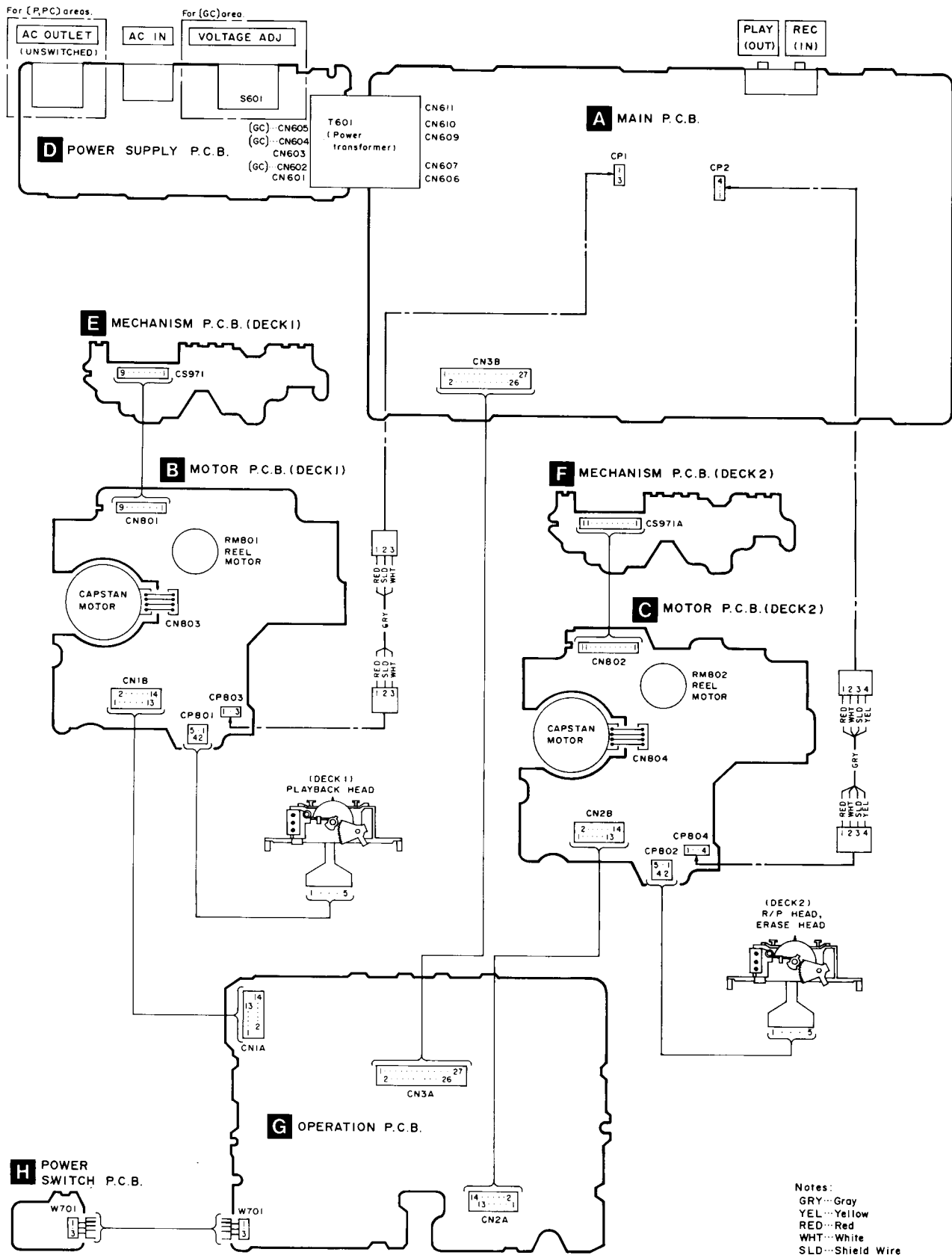


Fig. 6



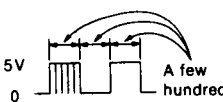


WIRING CONNECTION DIAGRAM


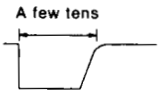

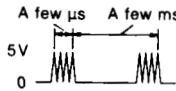


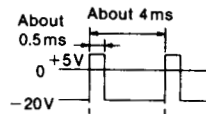
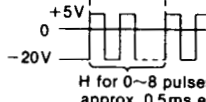


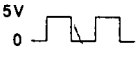



■ TERMINAL FUNCTION OF IC

• IC701 (M38123M4101F): MICROCOMPUTER

*To check the contents of the item "※" in the IC terminal table, set the unit to the state described in the "Motor Control PCB Checking Method" on page 22.

Pin No.	Mark	I/O Division	Function	Check point	※ Description
1	AD2D2	I	Deck 2 Mechanism switch (MODE, RINH, HALF) input	Connector CN2A ④ pin CN802 ⑤ pin	No tape load: Approx. 4.1V Normal tape with tab: Approx. 2.3V
2	AD1D2	I	Deck 2 Mechanism switch (FINH, CrO ₂ , Metal, OPEN/CLOSE) input	Connector CN2 ③ pin	No tape load: Approx. 4.1V Normal tape with tab: Approx. 0V Chrome tape with tab: Approx. 1.1V Metal tape with tab: Approx. 1.7V
3	METER-R	I	Rch indication level input	Connector CN3 ② pin	0V with no signal and 1V with 0VU (−20dB) input in the REC or PAUSE mode. The voltage varies from 0 to 5V for different input levels.
4	METER-L	I	Lch indication level input	Connector CN3 ① pin	
5	TEST		Test mode input	IC701 ⑤ pin	Normal: "H" (=4.8V) Test (Service) mode: "L" (=0V)
6	POWER	O	Power control output ON: "H", OFF: "L"	Connector CN3 ⑬ pin	Power ON: "H" (=5V) Power OFF: "L" (=0V)
7	MODEL	I	Model selector terminal	IC701 ⑦ pin	Normal: "L" (=0V) The deck malfunctions when set to "H".
8	MSP	I	TPS signal det. input ON: "L", OFF: "H"	Connector CN3B ⑥ pin	TPS mode No program: "H" (=5V) Programs: "L" (=0V)
9	—	—	Not used	—	—
10	DMT	O	Line out mute signal output ON: "L", OFF: "H"	Connector CN3 ⑭ pin	"L" (=0V) when sound is being produced in the play or REC mode and "H" (=2.5~5V) when no sound is produced in the stop of FF/REW mode.
11	ECS	O	E2PROM chip select signal ON: "H", OFF "L"	Connector CN704 ① pin CN704 ⑤ pin	 (ex...For ↑ REV PLAY mode is changed)
12	ECLK	O	E2PROM serial clock output ON: "L", OFF: "H"	Connector CN704 ② pin CN704 ④ pin	 Waveform appears in response to 11 above.
13	EDAT	I/O	E2PROM serial data input/output	Connector CN704 ③ pin	 (ex...For ↔ REV PLAY mode is changed) Waveform appears in response to 11 above.
14	PBADJ	O	Playback adj. output ON: "H", OFF: "L"	Connector CN3 ⑦ pin	Used for adjustment at factory but in the finished product. Remains at "L" (=0V).
15	OSC	O	Audio signal for adjustment output	Connector CN3 ⑥ pin	Generated signals at approx. 400Hz, 10kHz and 3kHz (square wave (H and L, 0 and 5V) in REC mode during adjustment of ARM).
16	STB	O	Strobe (load) output for the DA converter (IC151)	Connector CN3 ⑪ pin	Used to load output for the DA converter (IC151).
17	REMOTE	I	Remocon signal input ON: "H", OFF: "L"	Z701 ① pin	H and L pulse waveform appears on the input of a remote control signal.

Pin No.	Mark	I/O Division	Function	Check point	※ Description
18	POF	I	Power off det. input ON: "H", OFF: "L"	Connector CN3 ⑫ pin	 <p>Rectified waveform at both 50 and 60Hz (clamping at 5V)</p> <p>The microprocessor goes into standby mode when this signal is removed.</p>
19	RESET	I	Reset input ON: "L", OFF: "H"	IC701 ⑩ pin	 <p>Usually H (=5V) but L for a period of a few to a few tens of milliseconds is first plugged in when the player.</p>
20	SDAT	O	Serial data output for DA converter (IC151)/serial-parallel converter (IC152) ON: "H", OFF: "L"	Connector CN3 ⑩ pin	 <p>Data output in response to 21</p>
21	SCLK	O	Serial clock output for DA converter (IC151)/serial-parallel converter (IC152) ON: "H", OFF: "L"	Connector CN3 ⑨ pin	 <p>Pulse signal is emitted only when a mode change occurs.</p>
22	XIN	I	Microcomputer clock OSC terminal	Z702 ① pin terminal	 <p>Oscillator waveform at 6MHz</p>
23	XOUT	O	Microcomputer clock OSC terminal	Z702 ③ pin terminal	 <p>Oscillator waveform at 6MHz</p>
24	GND	—	Microcomputer GND	IC701 ⑭ pin	0V
25	MLAT2	O	Latch output (Deck 2) for mechanism control ON: "H", OFF: "L"	Connector CN2 ⑦ pin	Serial data is sent to: IC801, IC802, and the mechanism driver IC. Select the Deck 2 data from this serial data and load it into IC802.
26	MLAT1	O	Latch output (Deck 1) for mechanism control ON: "H", OFF: "L"	Connector CN1 ⑥ pin	Select the Deck 1 data from the serial data and load it into IC801.
27	MDAT	O	Serial data output for mechanism control ON: "H", OFF: "L"	Connector CN1 ⑤ pin CN2 ⑥ pin	Serial data used to control the mechanism driver via IC801 and IC802.
28	MCLK	O	Serial clock output for mechanism control ON: "H", OFF: "L"	Connector CN1 ④ pin CN2 ⑤ pin	Emitted only when mechanism mode changes.
29 ┆ 45	P1 ┆ P17	O	FL meter segment output ON: "H", OFF: "L"	FL701 ⑫~⑮ pin	
46 ┆ 52	1G ┆ 7G	O	FL meter glid output ON: "H", OFF: "L"	FL701 ⑤~⑪ pin	 <p>H for 0~8 pulses of duration approx. 0.5ms each.</p>

Pin No.	Mark	I/O Division	Function	Check point	※ Description
53	RPT1	I	Deck 1 reel pulse det. input (take up side)	TRANSISTOR Q703 collector	 <p>Changes within the 0 ↔ 5V range each time the take up reel on deck 1 is through approximately 30 degrees.</p>
54	RPS1	I	Deck 1 reel pulse det. input (supply side)	TRANSISTOR Q704 collector	 <p>Supply reel on deck 1 Fast FF/REW mode is disabled unless both signals 53 and 54 are active.</p>
55	RPT2	I	Deck 2 reel pulse det. input (take up side)	TRANSISTOR Q705 collector	 <p>Take up reel on deck 2</p>
56	RPS2	I	Deck 2 reel pulse det. input (supply side)	TRANSISTOR Q706 collector	 <p>Supply reel on deck 2 Fast FF/REW mode is disabled unless both signals 55 and 56 are active.</p>
57	V _{DD}	—	Microcomputer terminal	Connector CN3 ⑳ pin	+5V, Backup
58	-VP	—	FL meter pull down voltage input terminal	Connector CN3 ㉑ pin	−20V
59	AV _{SS}	—	GND terminal (A/D)	Connector CN3 ㉒ pin	0V
60	V _{REF}	I	Reference power supply (+5V) (A/D)	Connector CN3 ㉓ pin CN1 ⑧ pin CN2 ⑨ pin	Can be checked at pin 7 of connector CN801 or at pin 9 of CN802.
61	KEY1	I	Key switch input	IC701 ⑤ pin	<p>DECK 1:</p> <p>When no key is pressed: 5V</p> <p>When Stop key is pressed: 0.4V</p> <p>When Power key is pressed: 0V</p> <p>When any other key is pressed: 0 to 5V</p>
62	KEY2	I	Key switch input	IC701 ⑥ pin	<p>DECK 2:</p> <p>When no key is pressed: 5V</p> <p>When Stop key is pressed: 0.4V</p> <p>When any other key is pressed: 0 to 5V</p>
63	MODEL2	I	Model selector terminal	IC701 ⑤ pin	<p>Change the voltage at this pin to match microprocessor operation to the individual model.</p> <p>TR373 (P, PC): 0V</p> <p>TR373 (E, EB, EG, GC, GN): 5V</p>
64	AD1D1	I	Deck 1 Mechanism switch (FINH, CrO ₂ , Metal, OPEN/CLOSE) input	Connector CN1 ③ pin	<p>No tape loaded: Approx. 4.1V</p> <p>Normal tape with tab: Approx. 2.3V</p> <p>Chrome tape with tab: Approx. 3.5V</p> <p>Metal tape with tab: Approx. 3.5V</p>

1 2 3 4 5

A

B

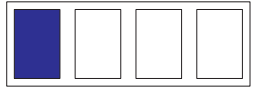
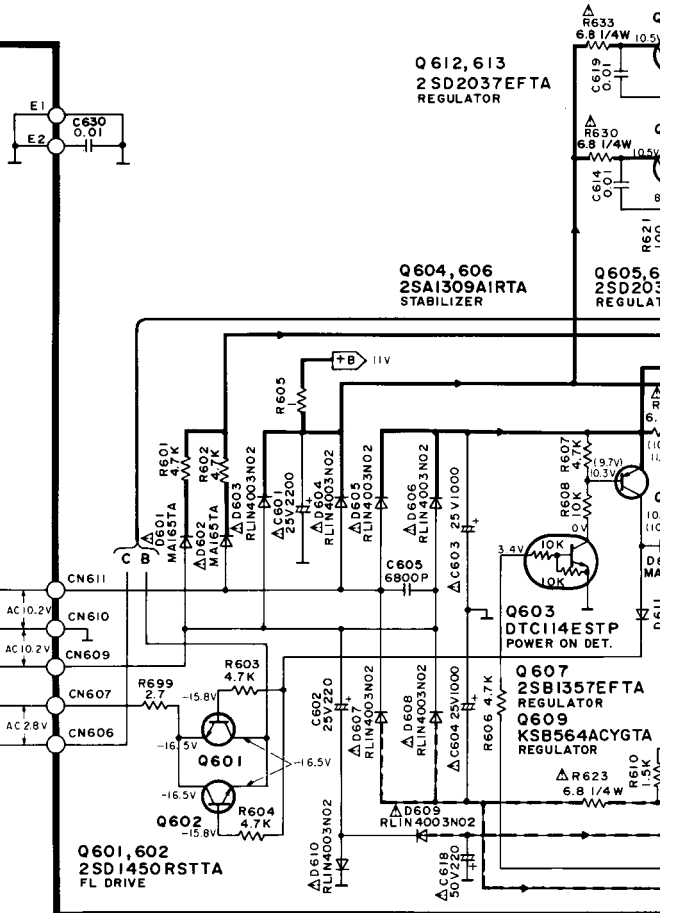
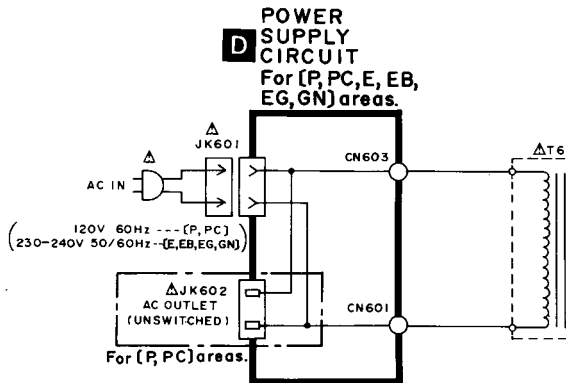
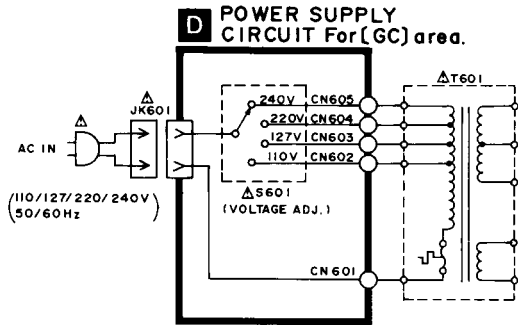
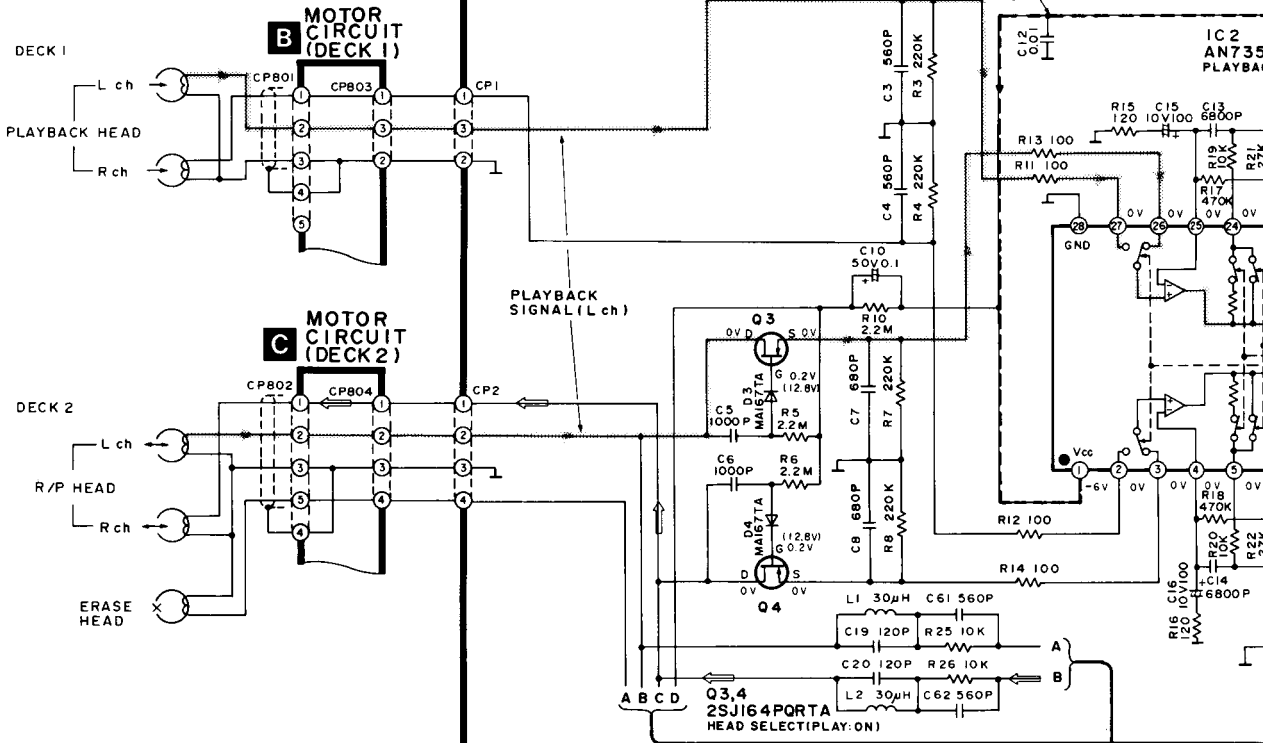
C

D

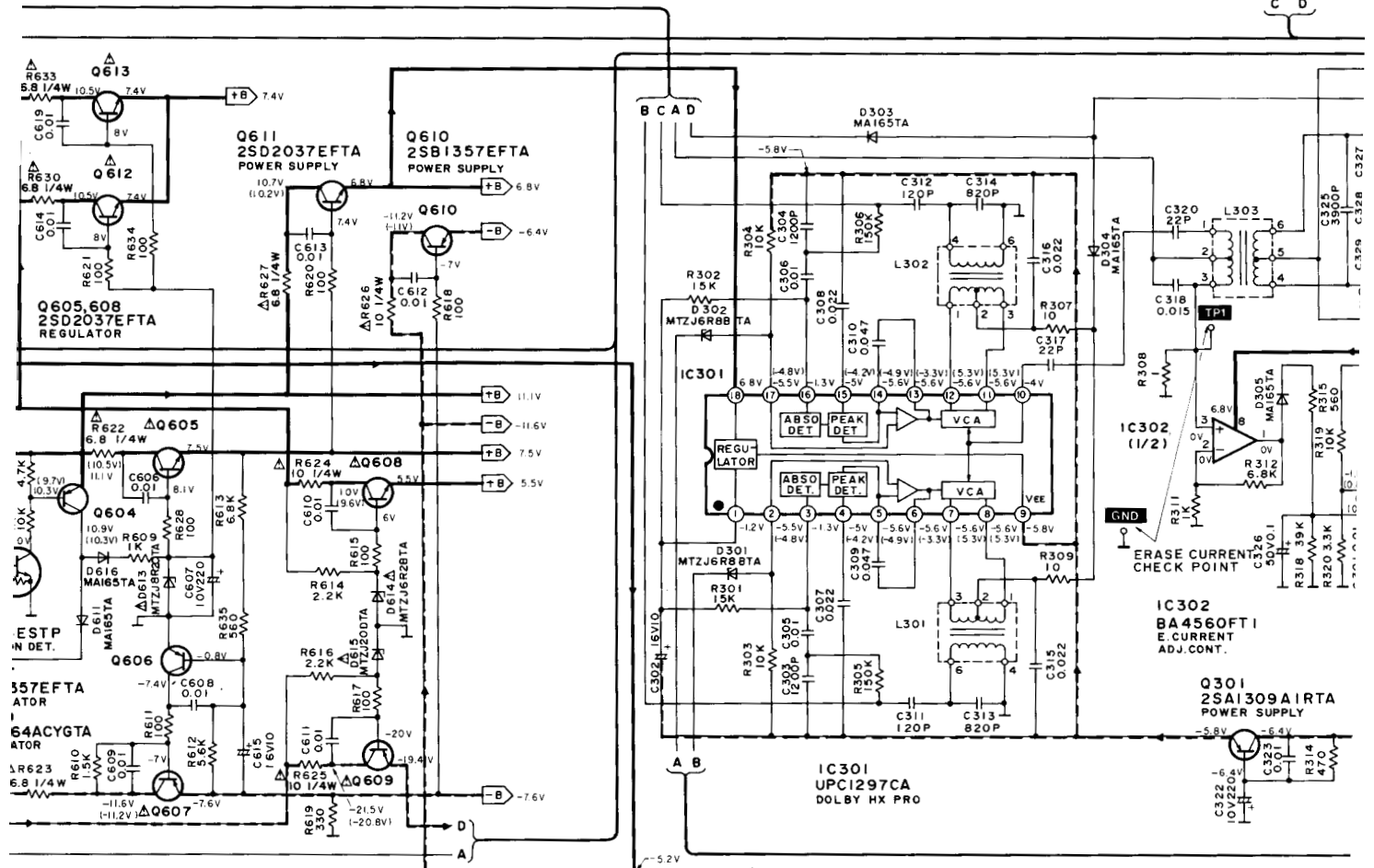
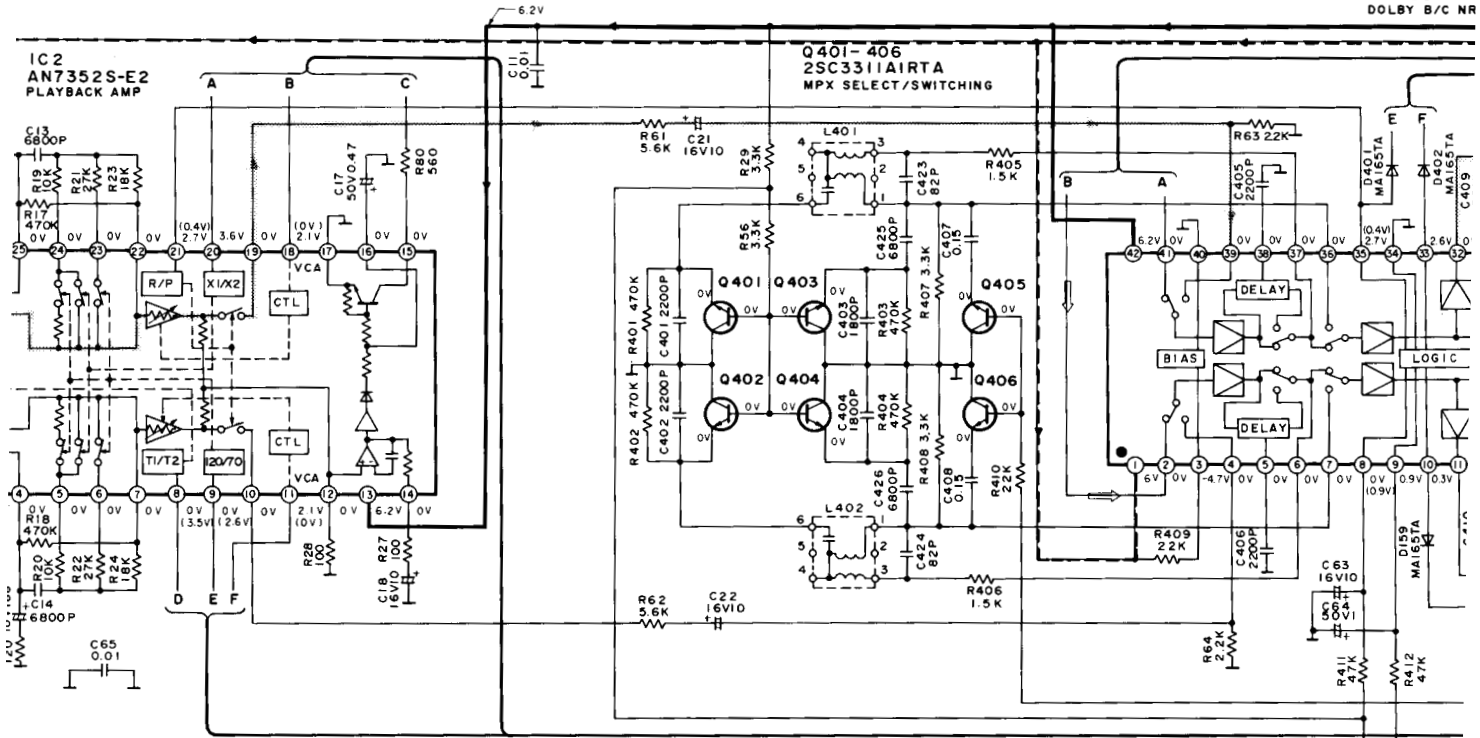
E

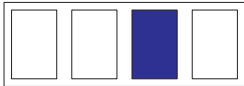
F

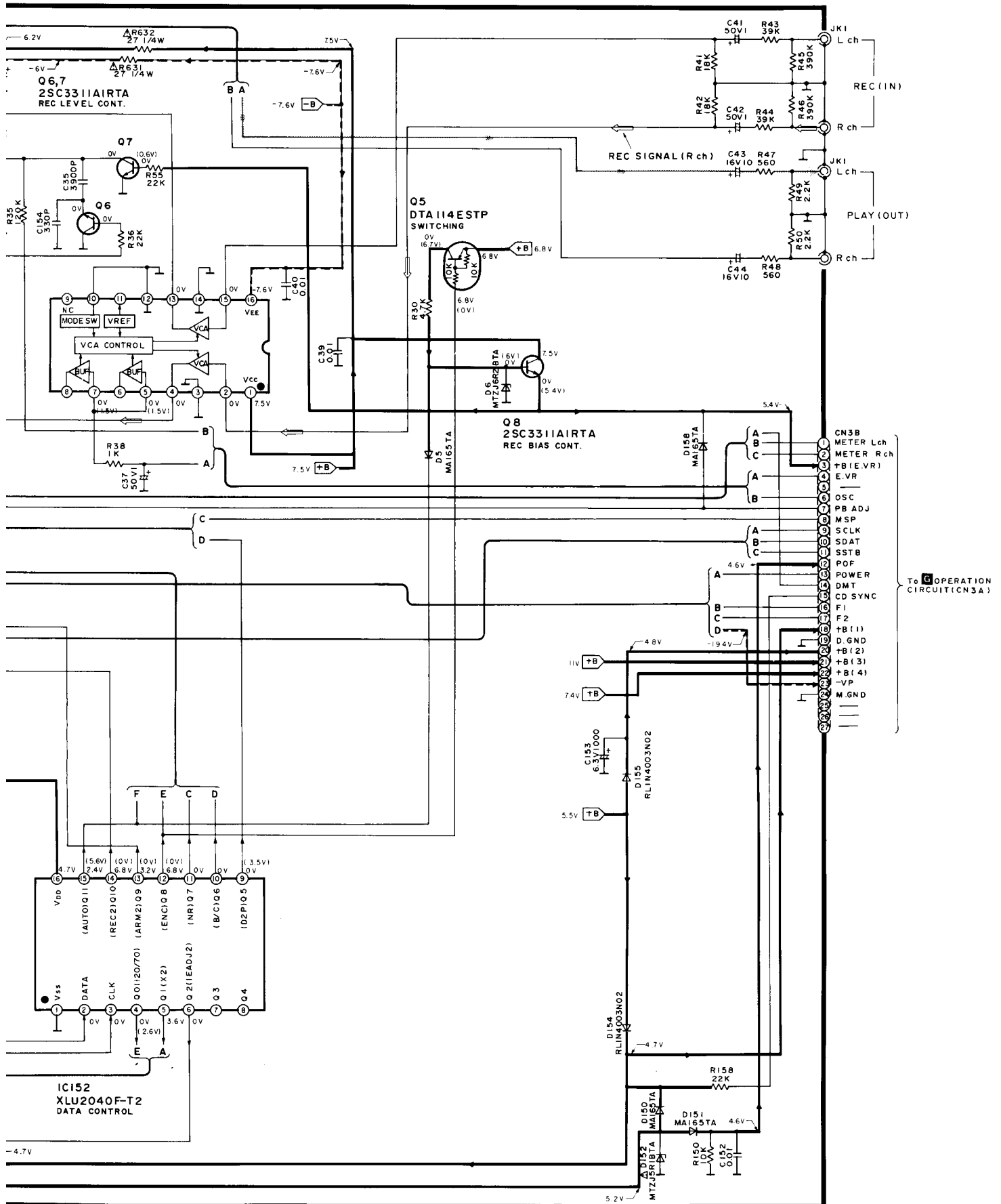
A MAIN CIRCUIT (PLAYBACK EQ AMP/POWER SUPPLY/DOLBY NR



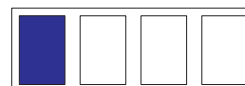
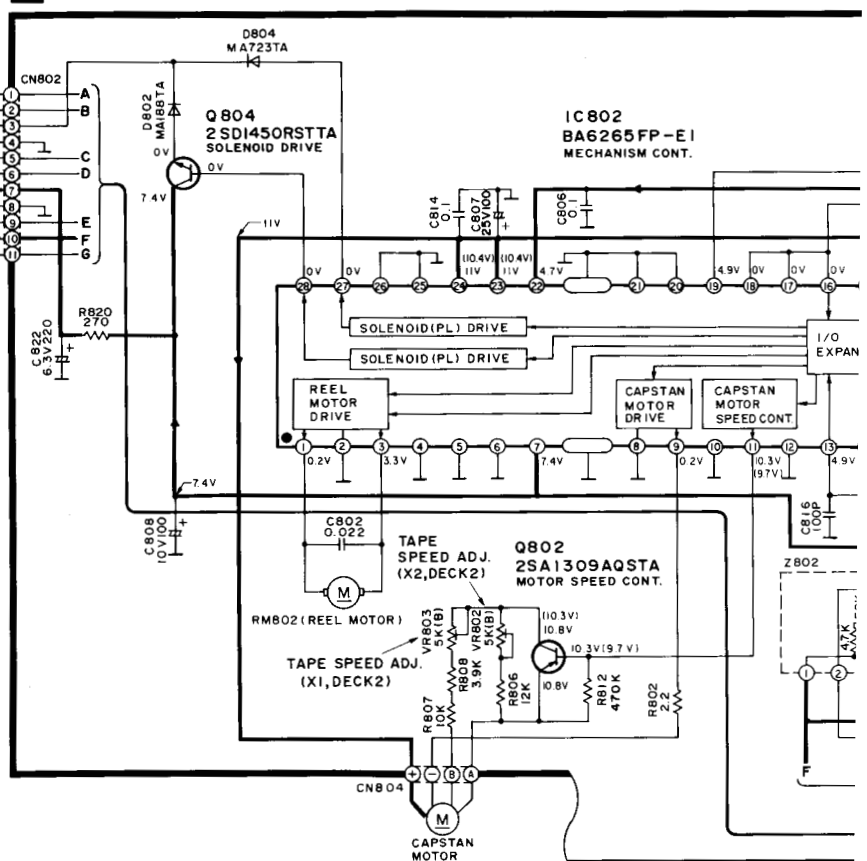
BY NR/HX PRO/BIAS OSC/REC EQ AMP/CONTROL/ELECTRIC VOLUME)

IC401
AN7354SC-
DOLBY B/C NR

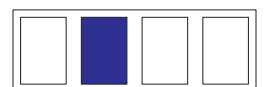
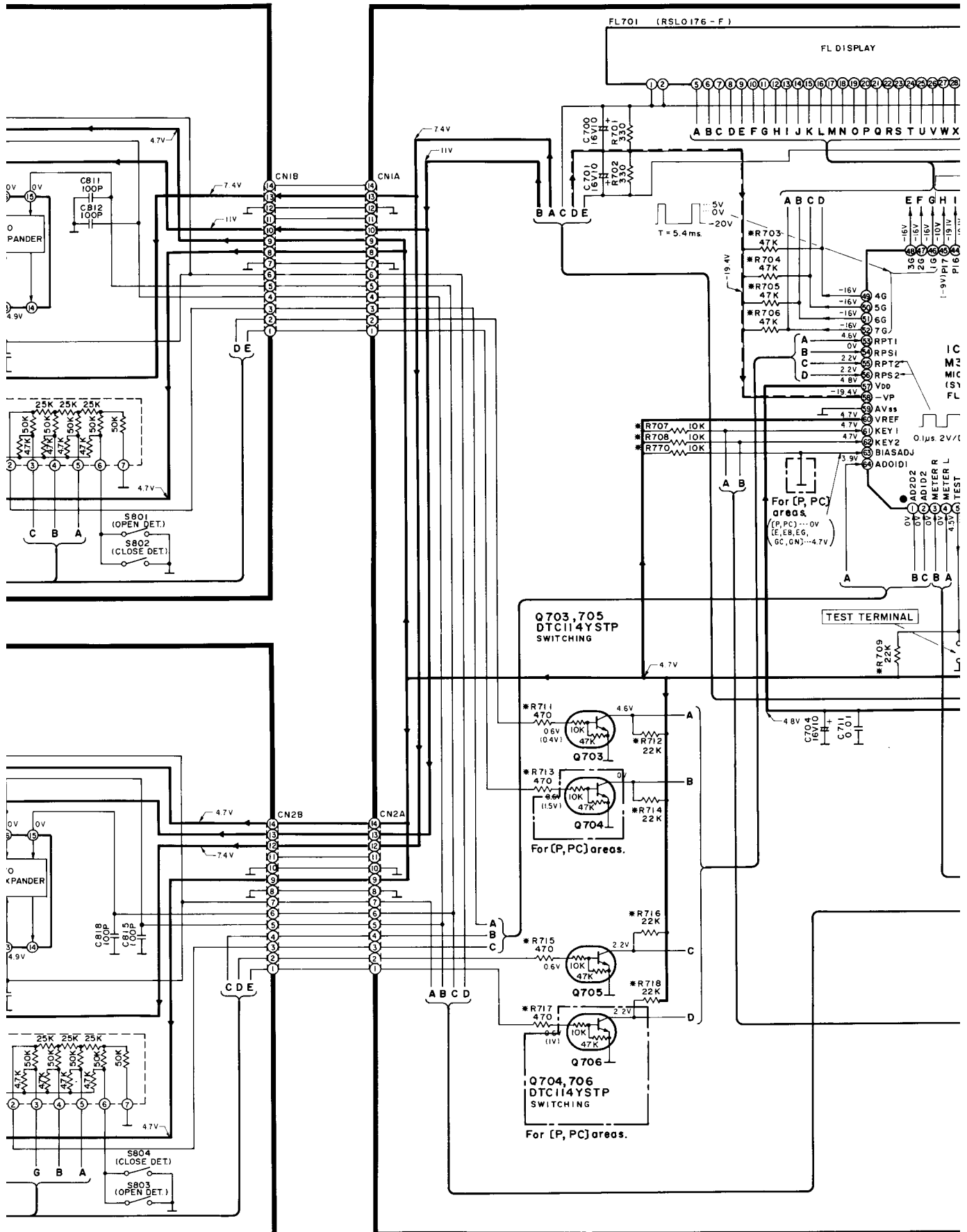


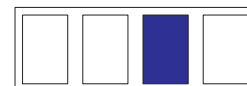


E MECHANISM CIRCUIT (DECK I)



G OPERATION CIRCUIT





SCHEMATIC DIAGRAM (Parts list on pages 57~60.)

(This schematic diagram may be modified at any time with the development of new technology.)

Note 1:

- S601 : Voltage selector in "240V" position. (For [GC] area only.)
(110V ↔ 127V ↔ 220V ↔ 240V)
- S701 : Dolby noise-reduction switch (DOLBY NR; [B], [C]).
- S702 : DECK 2 Stop switch (■).
- S703 : DECK 2 Forward-side playback switch (▶).
- S704 : DECK 2 Reverse-side playback switch (◀).
- S705 : DECK 2 Fast-forward search switch (▶▶ TPS).
- S706 : DECK 2 Rewind search switch (◀◀ TPS).
- S707 : DECK 2 Open/close switch (▲ OPEN/CLOSE).
- S708 : DECK 2 Record switch (● REC).
- S709 : DECK 2 Pause switch (■ PAUSE).
- S710 : DECK 2 Automatic-record-muting switch (● AUTO REC MUTE).
- S712 : DECK 2 Counter reset switch (COUNTER 2 RESET).
- S714 : Power "STANDBY ◊ /ON" switch (POWER, STANDBY ◊ /ON).
- S715 : DECK 1 Stop switch (■).
- S716 : DECK 1 Forward-side playback switch (▶).
- S717 : DECK 1 Reverse-side playback switch (◀).
- S718 : DECK 1 Fast-forward search switch (▶▶ TPS).
- S719 : DECK 1 Rewind search switch (◀◀ TPS).
- S720 : DECK 1 Open/close switch (▲ OPEN/CLOSE).
- S721 : Auto tape calibration switch (ATC).
- S722 : Reverse-mode select switch (REVERSE MODE).
- S723 : Synchro-start switch (SYNCHRO START).
- S724 : Tape-to-tape recording-speed switch (SPEED; X1, X2).
- S725 : DECK 1 Counter reset switch (COUNTER 1 RESET).
- S801 : DECK 1 Cassette holder open detection switch in "off" position.
- S802 : DECK 1 Cassette holder close detection switch in "off" position.
- S803 : DECK 2 Cassette holder open detection switch in "off" position.
- S804 : DECK 2 Cassette holder close detection switch in "off" position.
- S971 : DECK 1 Mode switch in "off" position.
- S971A : DECK 2 Mode switch in "off" position.
- S972 : DECK 1 Half switch in "off" position.
- S972A : DECK 2 Half switch in "off" position.
- S973 : DECK 1 ATS (CrO₂) switch in "off" position.
- S973A : DECK 2 ATS (CrO₂) switch in "off" position.
- S974A : DECK 2 Reverse rec. inhibit switch in "off" position.
- S975A : DECK 2 Forward rec. inhibit switch in "off" position.
- S976A : DECK 2 ATS (Metal) switch in "off" position.
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
1 K=1,000 (Ω), 1 M=1,000 k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
().....Voltage values at record mode.

For measurement us EVM.

Important safety notice

Components identified by △ mark have special characteristics important for safety.

When replacing any of these components, use only manufacturer's specified parts.

- (———— < +B > ————) indicates +B (bias).
- (- - - - < -B > - - - -) indicates -B (bias).
- (◀ ◀ ◀ ◀) indicates the flow of the playback signal.
- (▶ ▶ ▶ ▶) indicates the flow of the record signal.
- The supply part number is described alone in the replacement parts list,

Ref. No.	Production Part No.	Supply Part No.
IC152	XLU2040F-T2	XLU2040F-T1
IC302	BA4560FT1	SVIBA4560FT1

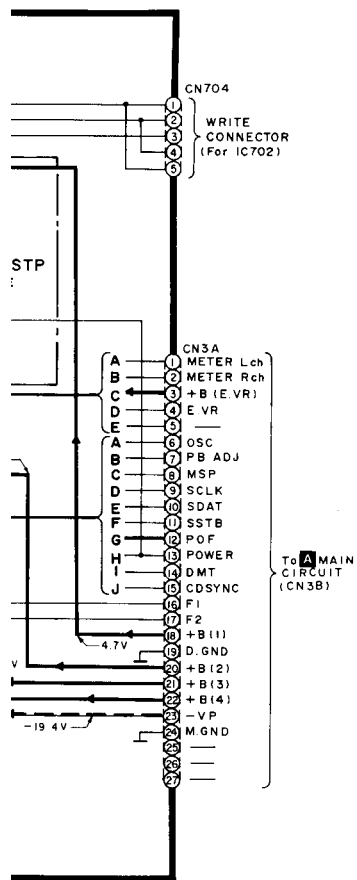
※ marks indicate printed resistor.

Caution!

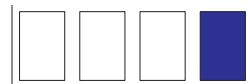
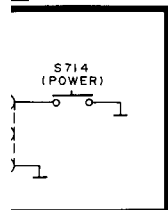
IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

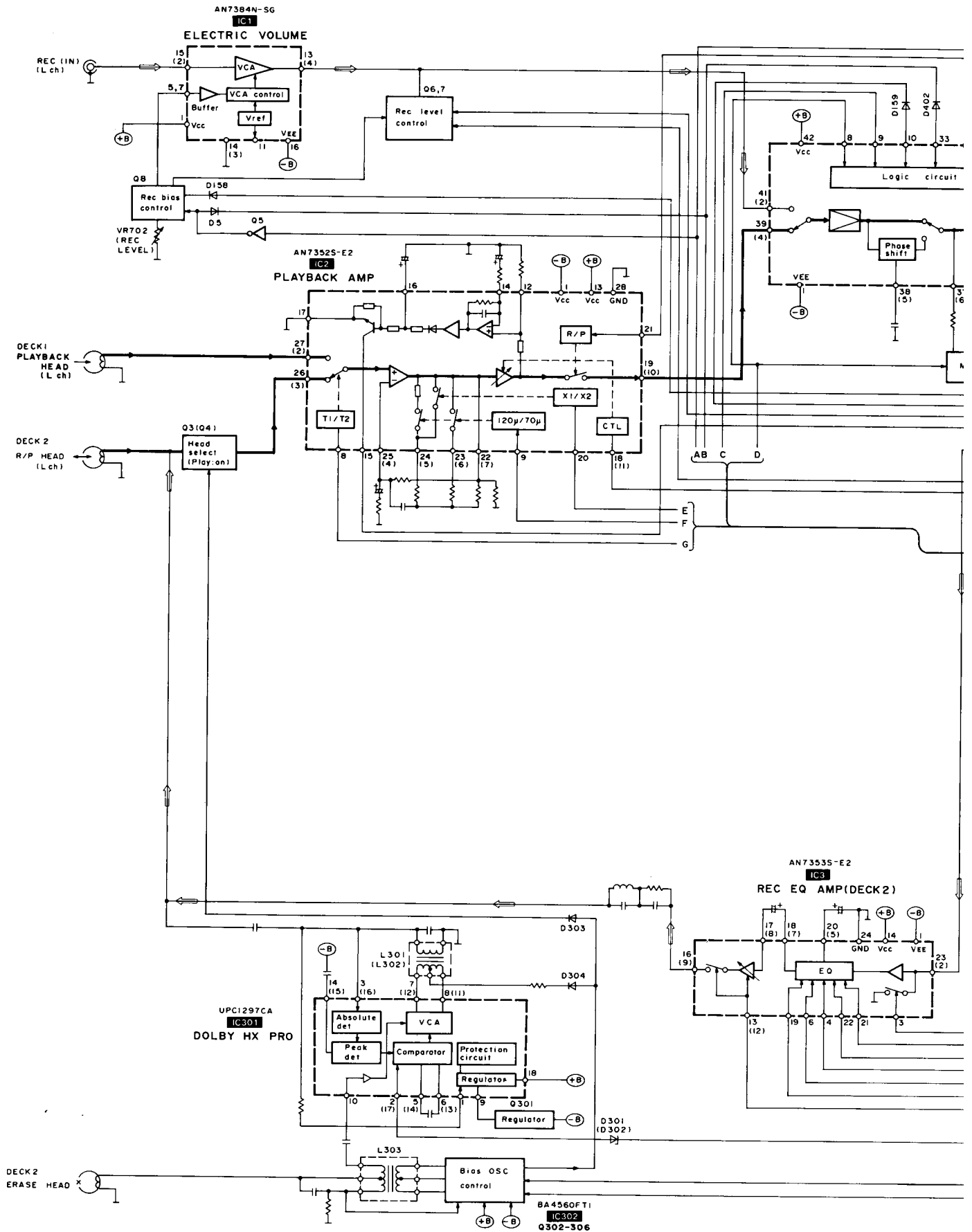
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

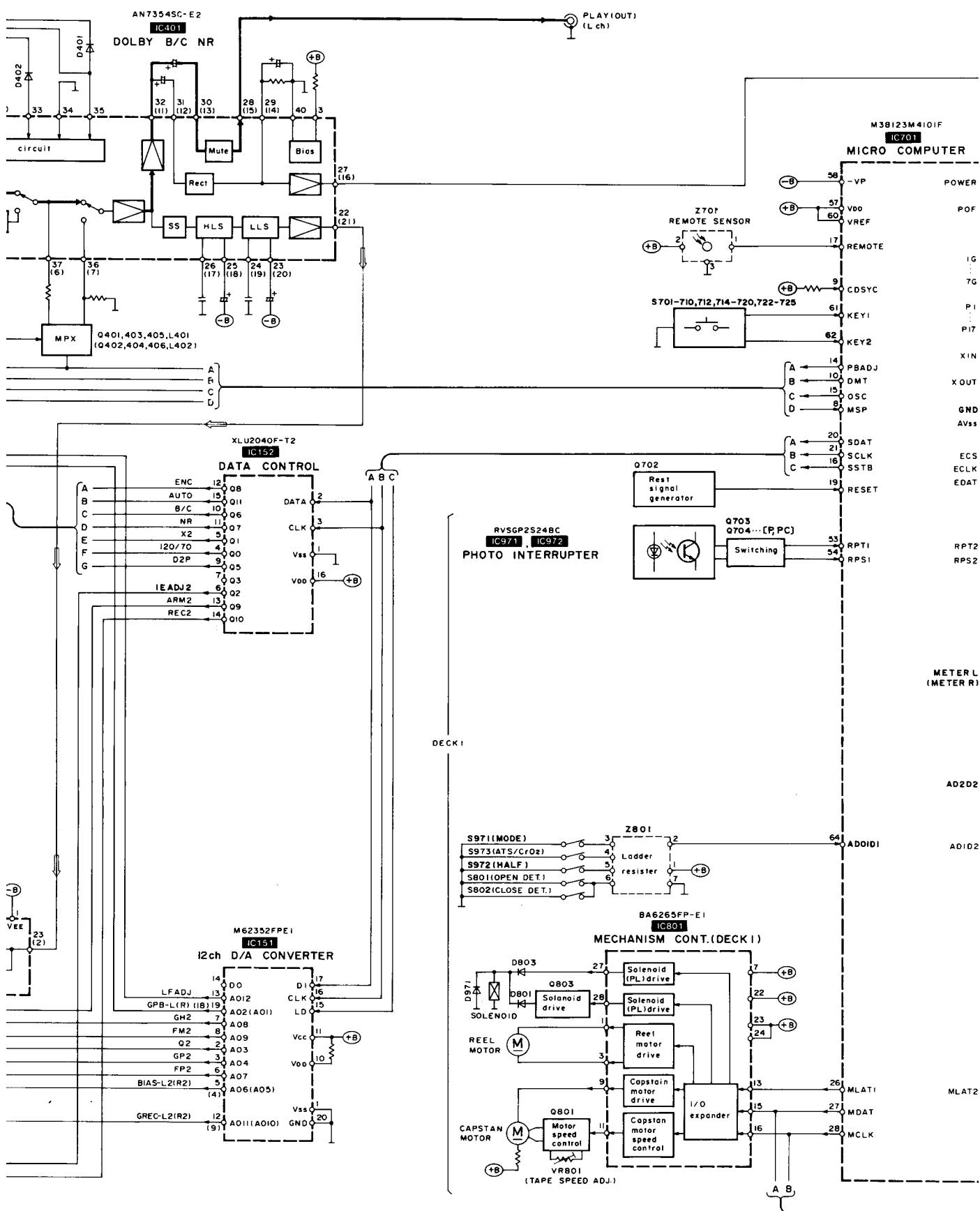


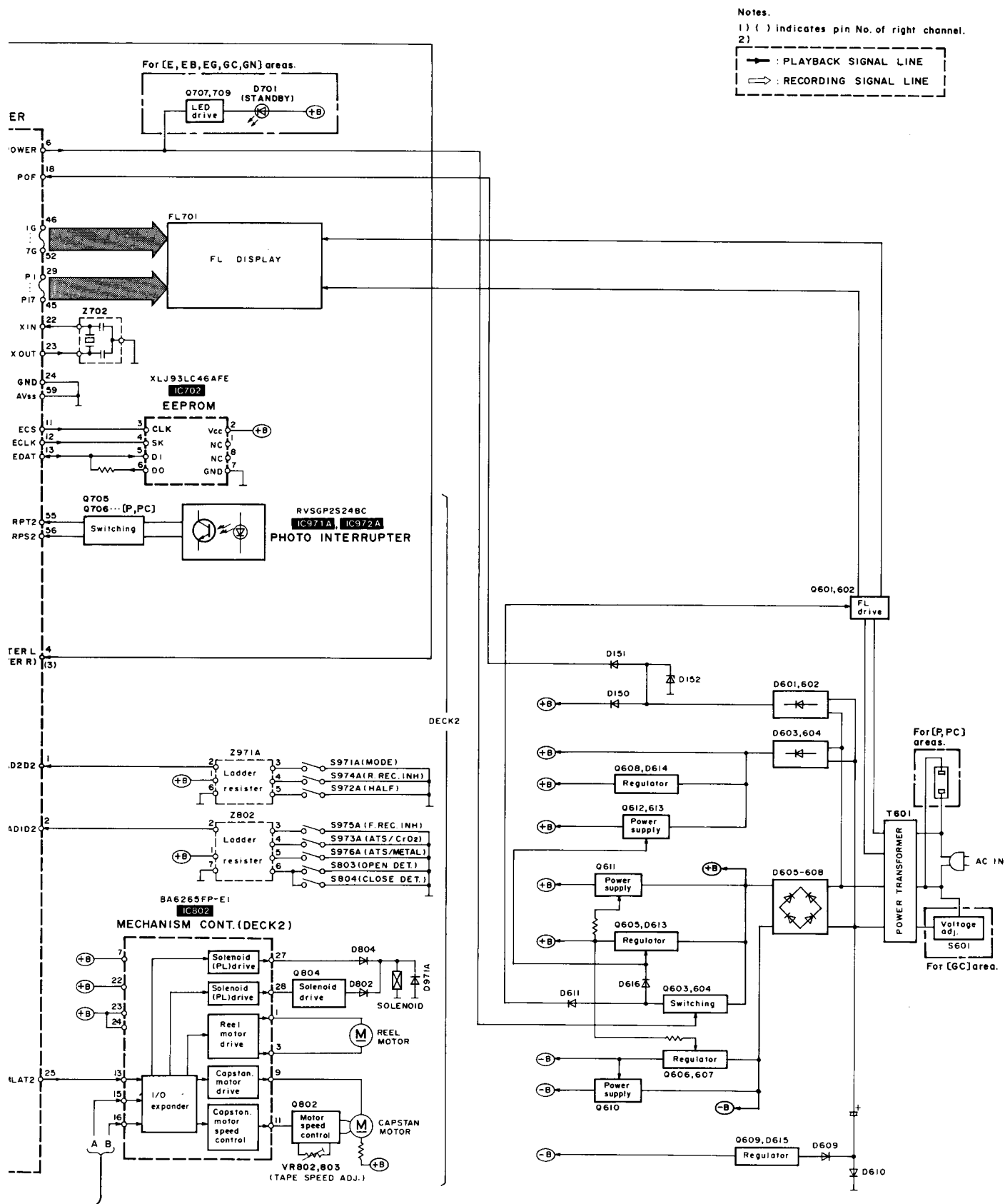
POWER SWITCH CIRCUIT



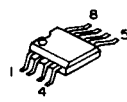
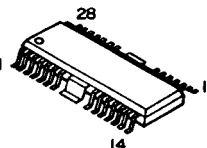
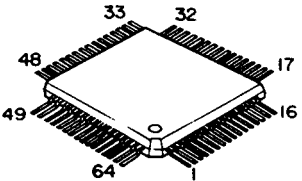
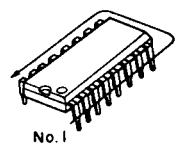
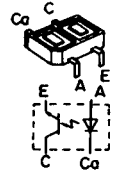
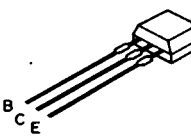
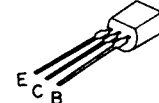

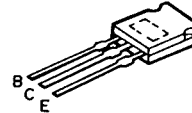

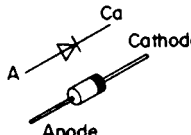
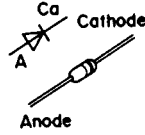
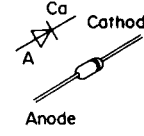
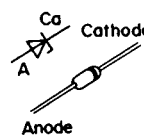
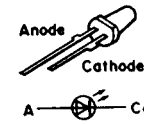
BLOCK DIAGRAM



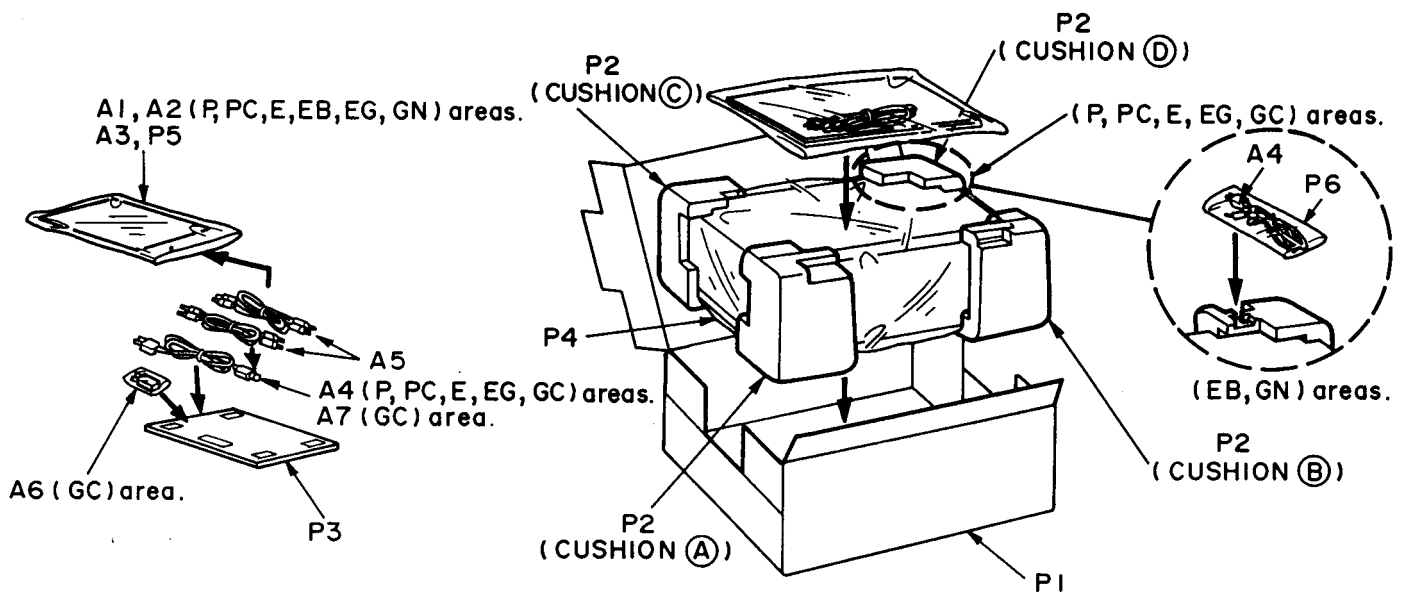




■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

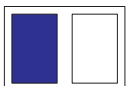
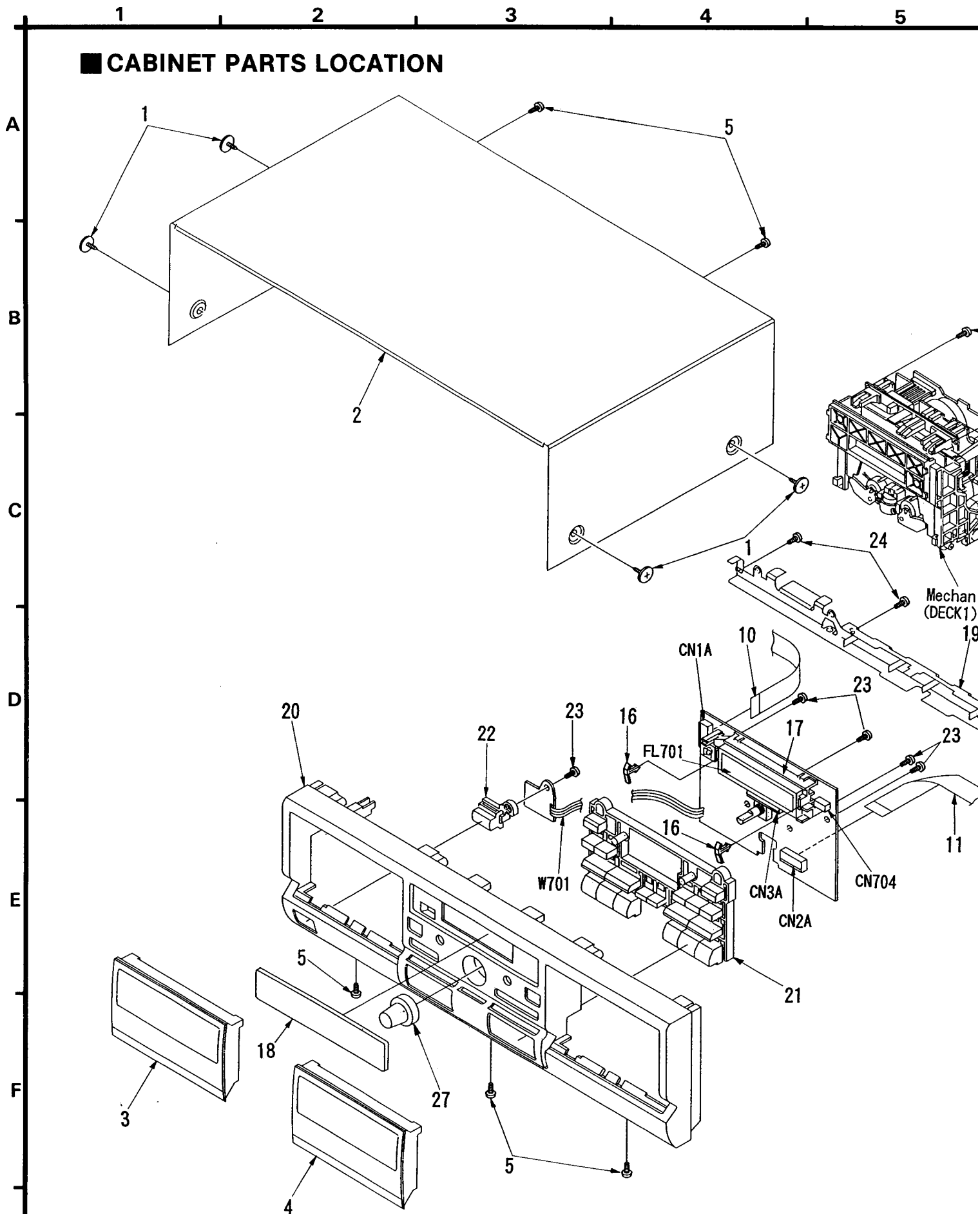
BA4560FT1 	BA6265FP-E1 	<table><tr><td>XLJ93LC46AFE</td><td>8 Pin</td></tr><tr><td>XLU2040F-T2</td><td>16 Pin</td></tr><tr><td>M62352FPE1</td><td>20 Pin</td></tr><tr><td>AN7353S-E2</td><td>24 Pin</td></tr><tr><td>AN7352S-E2</td><td>28 Pin</td></tr><tr><td>AN7354SC-E2</td><td>42 Pin</td></tr></table>		XLJ93LC46AFE	8 Pin	XLU2040F-T2	16 Pin	M62352FPE1	20 Pin	AN7353S-E2	24 Pin	AN7352S-E2	28 Pin	AN7354SC-E2	42 Pin	M38123M4101F 
XLJ93LC46AFE	8 Pin															
XLU2040F-T2	16 Pin															
M62352FPE1	20 Pin															
AN7353S-E2	24 Pin															
AN7352S-E2	28 Pin															
AN7354SC-E2	42 Pin															
 No. 1	<table><tr><td>AN7384N-SG</td><td>16 Pin</td></tr><tr><td>UPC1297CA</td><td>18 Pin</td></tr></table>	AN7384N-SG	16 Pin	UPC1297CA	18 Pin	RVSGP2S24BC 	 DTA114ESTP DTC114ESTP DTC114YSTP		KSB564ACYGTA KSD471ACYGTA 							
AN7384N-SG	16 Pin															
UPC1297CA	18 Pin															
 E C B	2SA1309AIRT 2SB1030AQSTA 2SC3311AIRT 2SD1450RSTTA	2SB1357EFTA 2SD2037EFTA 	2SJ164PQRTA  D G S	RL1N4003N02  Ca Cathode Anode	MA188TA  Ca Cathode Anode											
 Ca Cathode Anode	MA165TA MA167TA MA723TA RVD1SS133TA	 Ca Cathode Anode	MTZJ5R1BTA MTZJ6R2BTA MTZJ6R8BTA MTZJ8R2CTA MTZJ20DTA		LN28RPX  Anode Cathode A Ca											

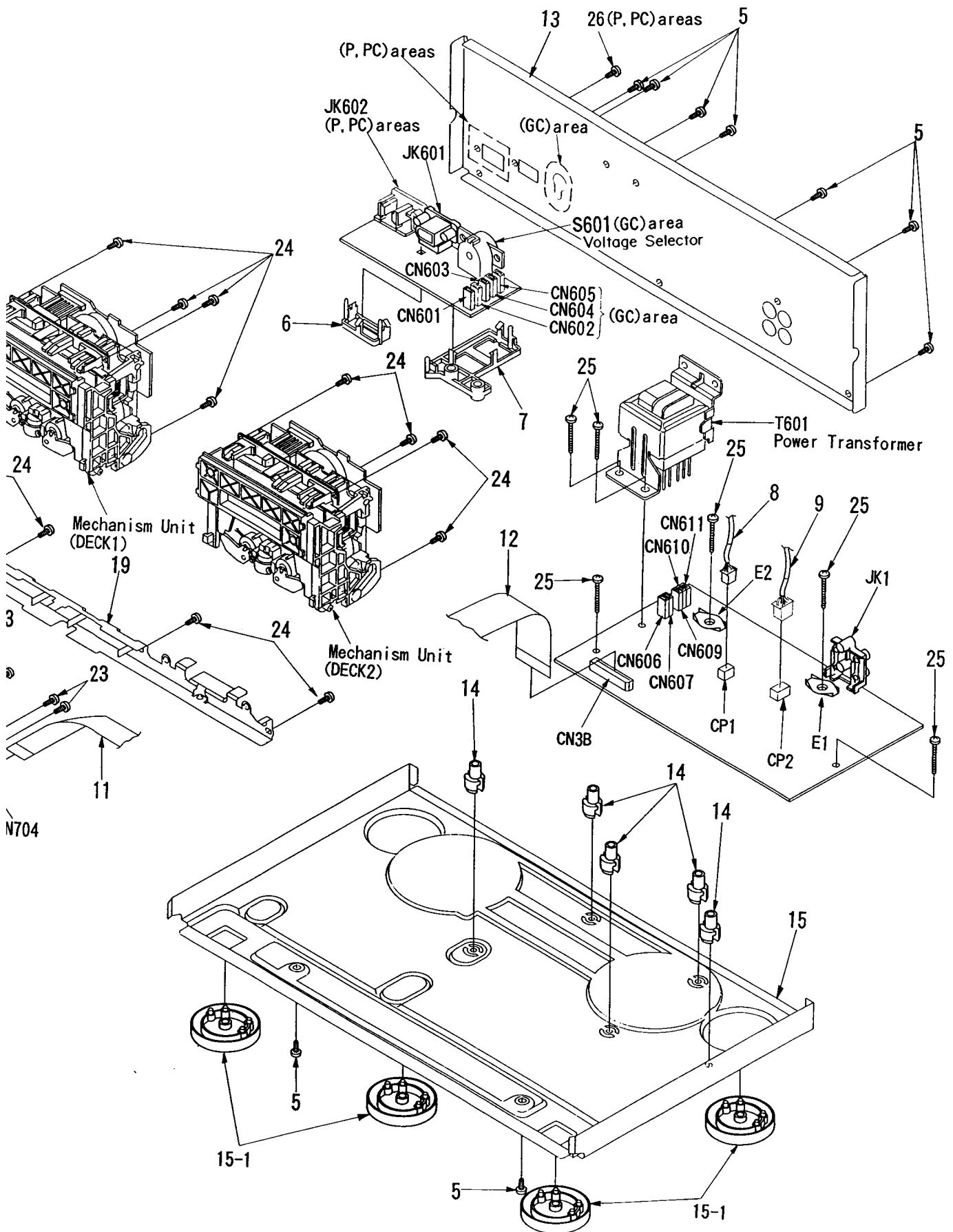
■ PACKAGING



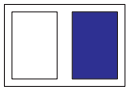
<CUSHION ①, ②, ③, ④ Part No.: RPN0664-1 (P, PC, E, EG, GC), RPN0665 (EB, GN)>

CABINET PARTS LOCATION





N704



REPLACEMENT PARTS LIST

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

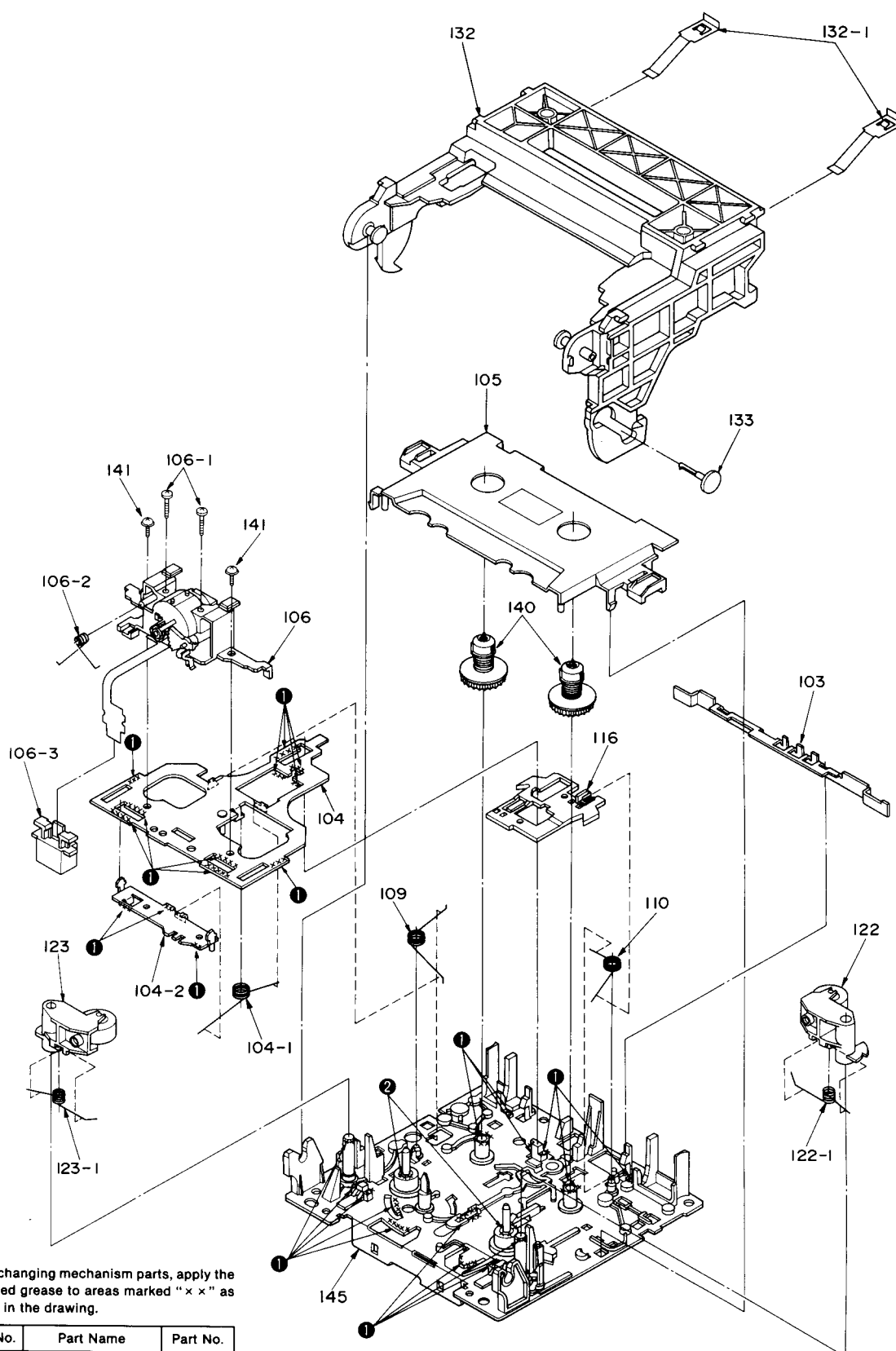
*The "(SF)" mark denotes the standard part.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS		P4	XZB50X65A02Z	PROTECTION COVER(THIS UNIT)	
				P5	XZB24X34C04	PROTECTION BAG(F. B., ACC.)	
				P6	RPH0032	MIRROR SHEET	(EB, GN)
						ACCESSORIES	
1	RHD30035-K	SCREW		A1	RQT2233-P	INSTRUCTION MANUAL	(P)
2	RKM0260-K	CABINET		A1	RQT2237-B	INSTRUCTION MANUAL	(EB, GN)
3	RYF0262A-K	CASSETTE LID(DECK1)	(P, PC)	A1	RFKSSTR373E	INSTRUCTION MANUAL ASS'Y	(E)
3	RYF0262D-K	CASSETTE LID(DECK1)	(E, EB, EG, GC, GN)	A1	RFKSSTR373EG	INSTRUCTION MANUAL ASS'Y	(EG)
4	RYF0262B-K	CASSETTE LID(DECK2)	(P, PC)	A1	RFKSSTR373GC	INSTRUCTION MANUAL ASS'Y	(GC)
4	RYF0262J-K	CASSETTE LID(DECK2)	(E, EB, EG, GC, GN)	A1	RFKSSTR373PC	INSTRUCTION MANUAL ASS'Y	(PC)
5	XTBS3+8JFZ1	SCREW		A2	RQA0013	WARRANTY CARD	(E, EB, EG)
6	RFKNSTR373AK	TRANSFORMER BASE 1 ASS'Y		A2	RQA0085	WARRANTY CARD	(P)
7	RFKNSTR373BK	TRANSFORMER BASE 2 ASS'Y		A2	RQX7433ZA	WARRANTY CARD	(GN)
8	REX0578	CONNECTOR ASS'Y(3P)		A2	SQX7183	WARRANTY CARD	(PC)
9	REX0579	CONNECTOR ASS'Y(4P)		A3	RQCB0169	SERVICENTER LIST	(E, EB, EG, GC, GN)
10	REZ0641	FLEXIBLE FLAT CABLE(14P)		A3	RQCB0391	SERVICENTER LIST	(P)
11	REZ0642	FLEXIBLE FLAT CABLE(14P)		A3	SQX9131	SERVICENTER LIST	(PC)
12	REZ0643	FLEXIBLE FLAT CABLE(27P)		A4	RJA0019-2K	AC POWER SUPPLY CORD	(E, EG, GC) Δ (SF)
13	RGR0185A-A	REAR PANEL	(P, PC)	A4	RJA0036-K	AC POWER SUPPLY CORD	(GN) Δ (SF)
13	RGR0185B-A1	REAR PANEL	(E, EG)	A4	SJA172	AC POWER SUPPLY CORD	(P, PC) Δ (SF)
13	RGR0185B-C1	REAR PANEL	(EB, GN)	A4	VJA0733	AC POWER SUPPLY CORD	(EB) Δ (SF)
13	RGR0185C-A	REAR PANEL	(GC)	A5	SJP2249-3	STEREO CONNECTION CABLE	
14	RKQ0089	P. C. B. HOLDER		A6	SJP5213-1	POWER PLUG ADAPTOR	(GC) Δ
15	RFKJLPG460-K	BOTTOM CHASSIS ASS'Y		A7	RQLA0134	CAUTION LABEL(VOL. SELECTOR)	(GC)
15-1	RKA0053-A	FOOT					
16	RMN0195	FL HOLDER PIECE					
17	RMN0259	FL HOLDER					
18	RKWO326-R	TRANSPARENT PLATE	(P, PC)				
18	RKWO326B-R	TRANSPARENT PLATE	(E, EB, EG, GC, GN)				
19	RMA0766	MECHANISM ANGLE					
20	RFKGSTR373PK	FRONT PANEL ASS'Y					
21	RFKNSTR373CK	BUTTON ASS'Y, OPERATION					
22	RGU1026-K	BUTTON, POWER					
23	XTBS26+8J	SCREW					
24	XTB3+10JFZ	SCREW					
25	XTB3+20JFZ	SCREW					
26	XTBS3+8JFZ1	SCREW	(P, PC)				
27	RGWO197-K	KNOB, REC LEVEL					
		PACKING MATERIAL					
P1	RPG1908	PACKING CASE	(P, PC, GC)				
P1	RPG1911	PACKING CASE	(E, EG)				
P1	RPG1912	PACKING CASE	(EB)				
P1	RPG2065	PACKING CASE	(GN)				
P2	RPNO664-1	CUSHION	(P, PC, E, EG, GC)				
P2	RPNO665	CUSHION	(EB, GN)				
P3	RPQ0164	ACCESSORIES PAD					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS		135	RML0270A-1	DRIVE LEVER	
				136	RMQ0312A	DRIVE RACK	
				137	RMB0268	SPRING, HOLDER HOOK	
101	RXF0045	FLYWHEEL (F) ASS' Y (DECK1)		138	RML0271A	HOLDER HOOK	
101	RXF0045	FLYWHEEL (F) ASS' Y (DECK2)	(P, PC)	139	XTW2+6S	SCREW	
101	RXF0040	FLYWHEEL (F) ASS' Y (DECK2)	(E, EB, EG, GC, GN)	140	RXR0018	REEL TABLE	
102	RXF0046	FLYWHEEL (R) ASS' Y (DECK1)		141	XTW2+5L	SCREW	
102	RXF0046	FLYWHEEL (R) ASS' Y (DECK2)	(P, PC)	142	XTW26+12S	SCREW	
102	RXF0047	FLYWHEEL (R) ASS' Y (DECK2)	(E, EB, EG, GC, GN)	143	XTW26+6L	SCREW	
103	RML0272	SWITCH LEVER		144	RFKJSCH404AK	SUB CHASSIS ASS' Y	
104	RXQ0265	HEAD BASE ASS' Y		145	RFKJSCH404BK	CHASSIS ASS' Y	
104-1	RMB0266-1	SPRING, FOR. /REV. SIDE ROD					
104-2	RXM0036	FOR. /REV. SIDE ROD					
105	RKG0582-K	DRESSING PLATE					
106	RXQ0317	HEAD BLOCK (P. B.) (DECK1)					
106	RXQ0316	HEAD BLOCK (R/P) (DECK2)					
106-1	RHD17015	AZIMUTH ADJUSTMENT SCREW					
106-2	RMB0352	SPRING, HEAD HOLD					
106-3	RMQ0360A	CONNECTOR HOLDER					
107	RDV108ZA	BELT (DECK1)					
107	RDV108ZA	BELT (DECK2)	(P, PC)				
107	RDV0015	BELT (DECK2)	(E, EB, EG, GC, GN)				
108	RDK0019A	MAIN GEAR					
109	RMB0261	SPRING, HEAD BASE					
110	RMB0262	SPRING, BRAKE ROD					
111	RMB0263	SPRING (F)					
112	RMB0264	SPRING (R)					
113	RJW147ZA	SPRING, TRIGGER LEVER					
114	RML0267A	TRIGGER LEVER					
115	RML0268A	FOR. /REV. SIDE LEVER					
116	RMD0091A	BRAKE ROD					
117	RMS0398	MOVING IRON CORE					
118	RSJ0003	SOLENOID					
119	RUS6092C	SPRING, TAPE PRESSURE					
120	RXG0036	REEL GEAR					
121	RXL0106	IDLER GEAR					
122	RXP0052	PINCH ROLLER (F) ASS' Y					
122-1	RMB0259	SPRING, PINCH ROLLER (F)					
123	RXP0053	PINCH ROLLER (R) ASS' Y					
123-1	RMB0260	SPRING, PINCH ROLLER (R)					
124	RDG0206-1	LOADING GEAR					
125	RDG0209A	INTERMEDIATE GEAR					
126	REM0036-1	CAPSTAN MOTOR					
127	REM0043	REEL MOTOR					
128	RHD26013	SCREW					
129	RMC0169	SHIELD PLATE					
130	RMQ0314A	SURASUTO SPACER					
131	RXG0037	FRICTION GEAR ASS' Y					
132	RYF0263-K	CASSETTE HOLDER ASS' Y					
132-1	RUS7572A	SPRING, TAPE PRESSURE					
133	RMQ0430	RIVET					
134	RMB0269	SPRING, DRIVE LEVER					

MECHANISM PARTS LOCATION

(Top view)

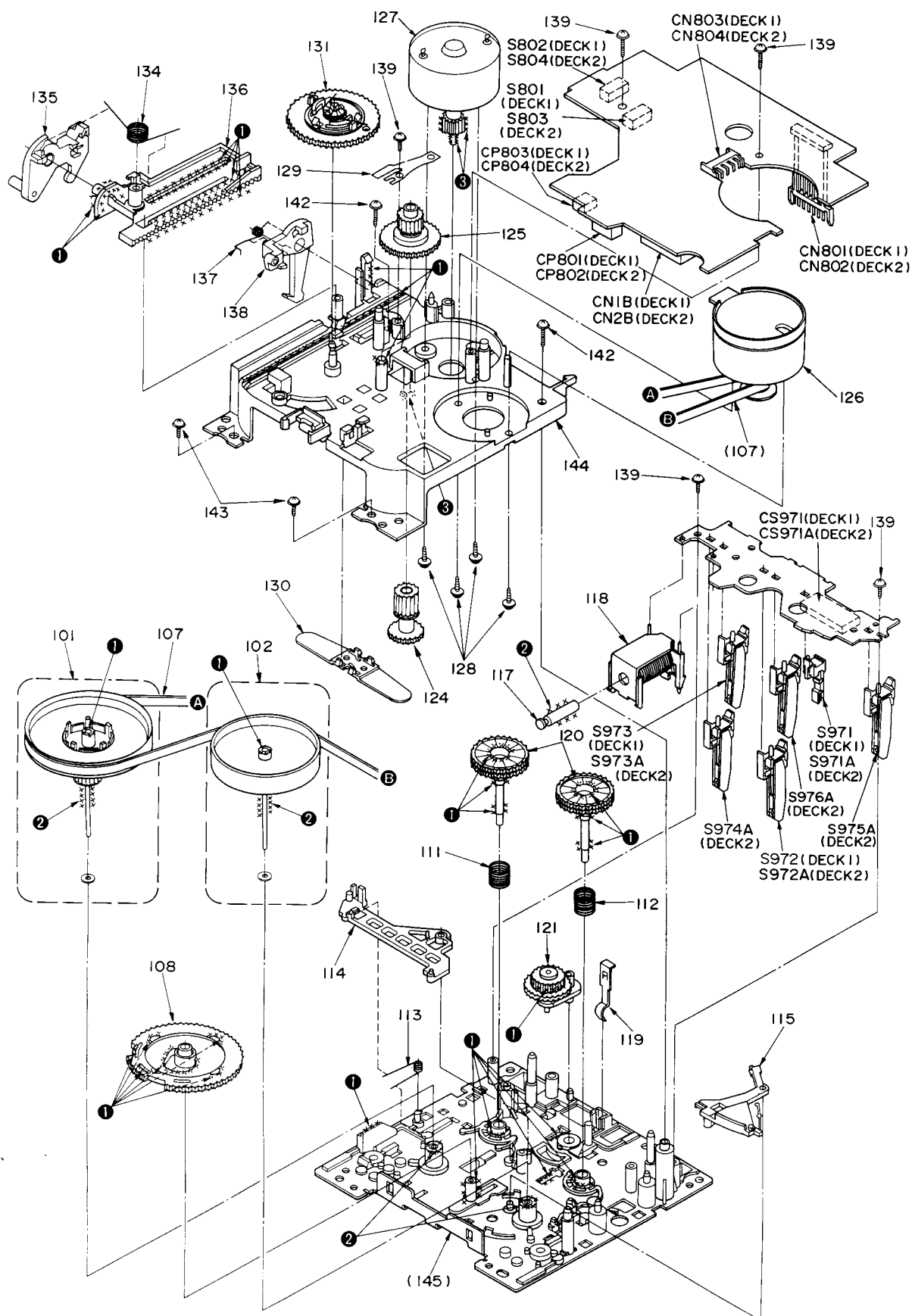


Note:

When changing mechanism parts, apply the specified grease to areas marked "x x" as shown in the drawing.

Ref. No.	Part Name	Part No.
①	FLOIL AK-152	SZZ0L18
②	SWAFLUID #56	RZZ0L02
③	MOLYCOAT EM-20L	RZZ0L05

(Bottom view)



REPLACEMENT PARTS LIST

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT (S)		Q707	DTC114ESTP	TRANSISTOR	(E, EB, EG, GC, GN)
				Q709	2SC3311AIRTA	TRANSISTOR	(E, EB, EG, GC, GN)
IC1	AN7384N-SG	ELECTRIC VOLUME		Q801	2SA1309AIRTA	TRANSISTOR (DECK1)	
IC2	AN7352S-E2	PLAYBACK AMP		Q802	2SA1309A-R	TRANSISTOR (DECK2)	
IC3	AN7353S-E2	REC EQ AMP (DECK2)		Q803	2SD1450RTA	TRANSISTOR (DECK1)	
IC151	M62352FPE1	12ch D/A CONVERTER		Q804	2SD1450RTA	TRANSISTOR (DECK2)	
IC152	XLU2040F-T1	DATA CONTROL				DIODE (S)	
IC301	UPC1297CA	DOLBY HX PRO (DECK2)					
IC302	SVIBA4560FT1	E. CURRENT ADJ. CONT. (DECK2)		D3, 4	MA167	DIODE	
IC401	AN7354SC-E2	DOLBY B/C NR		D5	MA165	DIODE	
IC701	M38123M4101F	MICROCOMPUTER		D6	MTZJ6R2BTA	DIODE	
IC702	XLJ93LC46AFE	EEPROM		D150, 151	MA165	DIODE	
IC801	BA6265FP-E1	MECHANISM CONTROL (DECK1)		D152	MTZJ5R1BTA	DIODE	Δ
IC802	BA6265FP-E1	MECHANISM CONTROL (DECK2)		D154, 155	RL1N4003N02	DIODE	
IC971	RVSGP2S24BC	PHOTO INTERRUPTER (DECK1)		D158, 159	MA165	DIODE	
IC971A	RVSGP2S24BC	PHOTO INTERRUPTER (DECK2)		D301, 302	MTZJ6R8BTA	DIODE	
IC972	RVSGP2S24BC	PHOTO INTERRUPTER (DECK1)		D303-307	MA165	DIODE	
IC972A	RVSGP2S24BC	PHOTO INTERRUPTER (DECK2)		D401, 402	MA165	DIODE	
		TRANSISTOR (S)		D601, 602	MA165	DIODE	Δ
				D603-610	RL1N4003N02	DIODE	Δ
Q3, 4	2SJ164PQRTA	TRANSISTOR		D611	MA165	DIODE	
Q5	DTA114ESTP	TRANSISTOR		D613	MTZJ8R2CTA	DIODE	Δ
Q6-8	2SC3311AIRTA	TRANSISTOR		D614	MTZJ6R2BTA	DIODE	Δ
Q301	2SA1309AIRTA	TRANSISTOR		D615	MTZJ20DTA	DIODE	Δ
Q302, 303	2SC3311AIRTA	TRANSISTOR		D616	MA165	DIODE	
Q304	KSB564ACYGTA	TRANSISTOR		D701	LN28RPX	L. E. D.	(E, EB, EG, GC, GN)
Q305	KSD471ACYGTA	TRANSISTOR		D801	MA188TA	DIODE (DECK1)	
Q306	2SB1030AQSTA	TRANSISTOR		D802	MA188TA	DIODE (DECK2)	
Q401-406	2SC3311AIRTA	TRANSISTOR		D803	MA723TA	DIODE (DECK1)	
Q601, 602	2SD1450RTA	TRANSISTOR		D804	MA723TA	DIODE (DECK2)	
Q603	DTC114ESTP	TRANSISTOR		D971	RVD1SS133TA	DIODE (DECK1)	
Q604	2SA1309AIRTA	TRANSISTOR		D971A	RVD1SS133TA	DIODE (DECK2)	
Q605	2SD2037EFTA	TRANSISTOR	Δ			VARIABLE RESISTOR (S)	
Q606	2SA1309AIRTA	TRANSISTOR					
Q607	2SB1357EFTA	TRANSISTOR	Δ	VR702	EVJ02FFA7B15	REC LEVEL CONTROL	
Q608	2SD2037EFTA	TRANSISTOR	Δ	VR801	EVNDCAA03B53	TAPE SPEED ADJ. (DECK1:X1)	
Q609	KSB564ACYGTA	TRANSISTOR	Δ	VR802	EVNDCAA03B53	TAPE SPEED ADJ. (DECK2:X2)	
Q610	2SB1357EFTA	TRANSISTOR		VR803	EVNDCAA03B53	TAPE SPEED ADJ. (DECK2:X1)	
Q611	2SD2037EFTA	TRANSISTOR					
Q612, 613	2SD2037EFTA	TRANSISTOR	Δ			COIL (S)	
Q702	2SC3311AIRTA	TRANSISTOR					
Q703	DTC114YSTP	TRANSISTOR		L1, 2	SLQX303-1KT	COIL	
Q704	DTC114YSTP	TRANSISTOR	(P, PC)	L301, 302	SL09B1-Z	COIL	
Q705	DTC114YSTP	TRANSISTOR		L303	SL09B4-K	COIL (HX PRO ADJ.)	
Q706	DTC114YSTP	TRANSISTOR	(P, PC)	L401, 402	RLM2B006T-K	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		TRANSFORMER (S)		S973	RSH1A019-U	ATS (DECK1)	
				S973A	RSH1A019-U	ATS (DECK2)	
				S974A	RSH1A019-U	R. REC. INH. (DECK2)	
T601	RTP1K4B018-V	POWER TRANSFORMER	(E, EB, EG, GN) △	S975A	RSH1A019-U	F. REC. INH. (DECK2)	
T601	RTP1K4C015-V	POWER TRANSFORMER	(P, PC) △	S976A	RSH1A019-U	ATS (DECK2)	
T601	RTP1K4E026-V	POWER TRANSFORMER	(GC) △			CONNECTOR (S) AND SOCKET (S)	
		OSC. (S) AND COMBINATION (S)					
				CN1A	RJS1A6214-1	CONNECTOR (14P)	
Z701	RCDHC-278N	REMOTE SENSOR		CN1B	RJS1A6714	CONNECTOR (14P) (DECK1)	
Z702	EFOEC6004T4	CERAMIC OSCILLATOR (6MHz)		CN2A	RJS1A6214-1	CONNECTOR (14P)	
Z801	EXBF7L355SYV	COMBINATION PART (DECK1)		CN2B	RJS1A6714	CONNECTOR (14P) (DECK2)	
Z802	EXBF7L355SYV	COMBINATION PART (DECK2)		CN3A	RJS1A6227-1	CONNECTOR (27P)	
Z971A	EXBF6L306SYV	COMBINATION PART (DECK2)		CN3B	RJS1A6827	CONNECTOR (27P)	
		DISPLAY TUBE (S)		CN601	RJS1A1101T1	CONNECTOR (1P)	
				CN602	RJS1A1101T1	CONNECTOR (1P)	(GC)
				CN603	RJS1A1101T1	CONNECTOR (1P)	
FL701	RSL0176-F	DISPLAY TUBE		CN604, 605	RJS1A1101T1	CONNECTOR (1P)	(GC)
		SWITCH (ES)		CN606, 607	RJS1A1101T1	CONNECTOR (1P)	
				CN609-611	RJS1A1101T1	CONNECTOR (1P)	
S601	SSR187-1	VOLTAGE SELECTOR	(GC) △	CN704	SJS50581BB	SOCKET (5P)	
S701	EVQ21405R	DOLBY NR (B, C)		CN801	RJT071H09A	CONNECTOR (9P) (DECK1)	
S702	EVQ21405R	STOP (DECK2)		CN802	RJT071H11A	CONNECTOR (11P) (DECK2)	
S703	EVQ21405R	F. -SIDE PLAYBACK (DECK2)		CN803	RJR0113	MOTOR CONNECTOR (4P) (DECK1)	
S704	EVQ21405R	R. -SIDE PLAYBACK (DECK2)		CN804	RJR0113	MOTOR CONNECTOR (4P) (DECK2)	
S705	EVQ21405R	F. F. SEARCH (DECK2)		CP1	SJTD313	CONNECTOR (3P)	
S706	EVQ21405R	REW. SEARCH (DECK2)		CP2	SJTD413	CONNECTOR (4P)	
S707	EVQ21405R	OPEN/CLOSE (DECK2)		CP801	RJS2A0205-2S	CONNECTOR (5P) (DECK1)	
S708	EVQ21405R	REC (DECK2)		CP802	RJS2A0205-2S	CONNECTOR (5P) (DECK2)	
S709	EVQ21405R	PAUSE (DECK2)		CP803	RJP3G17ZA	CONNECTOR (3P) (DECK1)	
S710	EVQ21405R	AUTO REC MUTE (DECK2)		CP804	RJP4G17ZA	CONNECTOR (4P) (DECK2)	
S712	EVQ21405R	COUNTER2 RESET (DECK2)		CS971	RJU071H09M	SOCKET (9P) (DECK1)	
S714	EVQ21405R	POWER		CS971A	RJU071H11M	SOCKET (11P) (DECK2)	
S715	EVQ21405R	STOP (DECK1)				JACK (S)	
S716	EVQ21405R	F. -SIDE PLAYBACK (DECK1)					
S717	EVQ21405R	R. -SIDE PLAYBACK (DECK1)		JK1	SJF3069N	TERMINAL BOARD: REC/PLAY	
S718	EVQ21405R	F. F. SEARCH (DECK1)		JK601	SJSD16	AC INLET	(P, PC, GN) △
S719	EVQ21405R	REW. SEARCH (DECK1)		JK601	SJS9236	AC INLET	(E, EB, EG, GC) △
S720	EVQ21405R	OPEN/CLOSE (DECK1)		JK602	RJS1A1602-1S	AC OUTLET	(P, PC) △
S722	EVQ21405R	REVERSE MODE				GND PART (S)	
S723	EVQ21405R	SYNCHRO START					
S724	EVQ21405R	SPEED (X1, X2)		E1, 2	SNE1004-1	GND PLATE	
S725	EVQ21405R	COUNTER1 RESET (DECK1)				FLAT CABLE (S)	
S801	RSH1A024-U	OPEN DETECTION (DECK1)					
S802	RSH1A024-U	CLOSE DETECTION (DECK1)					
S803	RSH1A024-U	OPEN DETECTION (DECK2)					
S804	RSH1A024-U	CLOSE DETECTION (DECK2)		W701	REZ0640	FLAT CABLE (3P)	
S971	RSH1A018-U	MODE (DECK1)					
S971A	RSH1A018-U	MODE (DECK2)					
S972	RSH1A019-U	HALF (DECK1)					
S972A	RSH1A019-U	HALF (DECK2)					

RESISTORS AND CAPACITORS

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R313	ERDS2TJ822	1/4W 8. 2K	R762	ERDS2TJ151	1/4W 150 (E, EB, EG, GC, GN)
			R314	ERDS2TJ471	1/4W 470			
			R315	ERDS2TJ561	1/4W 560	R801	ERDS2TJ1R2	1/4W 1. 2 (DECK1)
R3, 4	ERDS2TJ224T	1/4W 220K	R316, 317	ERDS2TJ183T	1/4W 18K	R802	ERDS2TJ2R2T	1/4W 2. 2 (DECK2)
R5, 6	ERDS2TJ225	1/4W 2. 2M	R318	ERDS2TJ393	1/4W 39K	R803	ERDS2TJ153	1/4W 15K (DECK1)
R7, 8	ERDS2TJ224T	1/4W 220K	R319	ERDS2TJ103	1/4W 10K	R804	ERDS2TJ103	1/4W 10K (DECK1)
R10	ERDS2TJ225	1/4W 2. 2M	R320	ERDS2TJ332	1/4W 3. 3K	R805	ERDS2TJ392T	1/4W 3. 9K (DECK1)
R11-14	ERDS2TJ101	1/4W 100	R321	ERDS2TJ102	1/4W 1K	R806	ERDS2TJ123	1/4W 12K (DECK2)
R15, 16	ERDS2EJ121	1/4W 120	R322, 323	ERDS2TJ100	1/4W 10	R807	ERDS2TJ103	1/4W 10K (DECK2)
R17, 18	ERDS2TJ474	1/4W 470K	R324	ERDS2TJ122	1/4W 1. 2K	R808	ERDS2TJ392T	1/4W 3. 9K (DECK2)
R19, 20	ERDS2TJ103	1/4W 10K	R325	ERD2FCVG270T	1/4W 27 Δ	R811	ERDS2TJ474	1/4W 470K (DECK1)
R21, 22	ERDS2TJ273	1/4W 27K	R327	ERD2FCVG270T	1/4W 27 Δ	R812	ERDS2TJ474	1/4W 470K (DECK2)
R23, 24	ERDS2TJ183T	1/4W 18K	R328	ERDS2TJ222	1/4W 2. 2K	R819	ERDS2TJ271	1/4W 270 (DECK1)
R25, 26	ERDS2TJ103	1/4W 10K	R329	ERDS2TJ473	1/4W 47K	R820	ERDS2TJ271	1/4W 270 (DECK2)
R27, 28	ERDS2TJ101	1/4W 100	R330	ERD2FCVG270T	1/4W 27 Δ	R971	ERDS2TJ221	1/4W 220 (DECK1)
R29	ERDS2TJ332	1/4W 3. 3K	R332	ERDS2TJ102	1/4W 1K	R971A	ERDS2TJ221	1/4W 220 (DECK2)
R30	ERDS2TJ472	1/4W 4. 7K	R334	ERDS2TJ182	1/4W 1. 8K	R973	ERDS2TJ393	1/4W 39K (DECK1)
R31, 32	ERDS2TJ103	1/4W 10K	R401-404	ERDS2TJ474	1/4W 470K	R973A	ERDS2TJ393	1/4W 39K (DECK2)
R33, 34	ERDS2TJ823T	1/4W 82K	R405, 406	ERDS2TJ152	1/4W 1. 5K	R974	ERDS2TJ393	1/4W 39K (DECK1)
R35	ERDS2TJ124T	1/4W 120K	R407, 408	ERDS2TJ332	1/4W 3. 3K	R974A	ERDS2TJ393	1/4W 39K (DECK2)
R36	ERDS2TJ223	1/4W 22K	R409, 410	ERDS2TJ223	1/4W 22K			CAPACITORS
R38	ERDS2TJ102	1/4W 1K	R411, 412	ERDS2TJ473	1/4W 47K			
R41, 42	ERDS2TJ183T	1/4W 18K	R413, 414	ERDS2TJ104	1/4W 100K			
R43, 44	ERDS2TJ393	1/4W 39K	R601-604	ERDS2TJ472	1/4W 4. 7K	C3, 4	ECBT1H561KB5	50V 560P
R45, 46	ERDS2TJ394	1/4W 390K	R605	ERDS2TJ1R0	1/4W 1. 0	C5, 6	ECBT1H102KB5	50V 1000P
R47, 48	ERDS2TJ561	1/4W 560	R606, 607	ERDS2TJ472	1/4W 4. 7K	C7, 8	ECBA1H681KB5	50V 680P
R49, 50	ERDS2TJ222	1/4W 2. 2K	R608	ERDS2TJ103	1/4W 10K	C10	ECEA1HKA0R1B	50V 0. 1U
R55	ERDS2TJ223	1/4W 22K	R609	ERDS2TJ102	1/4W 1K	C11, 12	ECBT1E103ZF	25V 0. 01U
R56	ERDS2TJ332	1/4W 3. 3K	R610	ERDS2TJ152	1/4W 1. 5K	C13, 14	ECQB1H682JF3	50V 6800P
R59	ERDS2TJ393	1/4W 39K	R611	ERDS2TJ101	1/4W 100	C15, 16	ECEA1AU101	10V 100U
R60	ERDS2TJ333	1/4W 33K	R612	ERDS2TJ562	1/4W 5. 6K	C17	ECEA1HKA047B	50V 0. 47U
R61, 62	ERDS2TJ562	1/4W 5. 6K	R613	ERDS2TJ682T	1/4W 6. 8K	C18	ECEA1CKA100B	16V 10U
R63, 64	ERDS2TJ222	1/4W 2. 2K	R614	ERDS2TJ222	1/4W 2. 2K	C19, 20	ECKR2H121KB5	500V 120P
R67, 68	ERDS2TJ103	1/4W 10K	R615	ERDS2TJ101	1/4W 100	C21, 22	ECEA1CKA100B	16V 10U
R69, 70	ERDS2TJ682T	1/4W 6. 8K	R616	ERDS2TJ222	1/4W 2. 2K	C23, 24	ECEA1HKA2R2B	50V 2. 2U
R80	ERDS2TJ561	1/4W 560	R617, 618	ERDS2TJ101	1/4W 100	C25, 26	ECEA1HKA047B	50V 0. 47U
R150	ERDS2TJ103	1/4W 10K	R619	ERDS2TJ331	1/4W 330	C27, 28	ECEA1CN100SB	16V 10U
R158	ERDS2TJ223	1/4W 22K	R620, 621	ERDS2TJ101	1/4W 100	C29-32	ECEA1CKA100B	16V 10U
R173	ERDS2TJ221	1/4W 220	R622, 623	ERD2FCVJ6R8T	1/4W 6. 8 Δ	C33, 34	ECEA1CKA220B	16V 22U
R174-176	ERDS2TJ103	1/4W 10K	R624-626	ERD2FCVG100T	1/4W 10 Δ	C35	ECKR1H392KB5	50V 3900P
R301, 302	ERDS2TJ153	1/4W 15K	R627	ERD2FCVJ6R8T	1/4W 6. 8 Δ	C37	ECEA1HKA010B	50V 1U
R303, 304	ERDS2TJ103	1/4W 10K	R628	ERDS2TJ101	1/4W 100	C39, 40	ECBT1E103ZF	25V 0. 01U
R305, 306	ERDS2TJ154	1/4W 150K	R630	ERD2FCVJ6R8T	1/4W 6. 8 Δ	C41, 42	ECEA1HKA010B	50V 1U
R307	ERDS2TJ100	1/4W 10	R631, 632	ERD2FCVG270T	1/4W 27 Δ	C43, 44	ECEA1CKA100B	16V 10U
R308	ERDS2TJ1R0	1/4W 1. 0	R633	ERD2FCVJ6R8T	1/4W 6. 8 Δ	C61, 62	ECBT1H561KB5	50V 560P
R309	ERDS2TJ100	1/4W 10	R634	ERDS2TJ101	1/4W 100	C63	ECEA1CKA100B	16V 10U
R310	ERD2FCVG270T	1/4W 27 Δ	R635	ERDS2TJ561	1/4W 560	C64	ECEA1HKA010B	50V 1U
R311	ERDS2TJ102	1/4W 1K	R699	ERDS2TJ2R7T	1/4W 2. 7	C65	ECBT1E103ZF	25V 0. 01U
R312	ERDS2TJ682T	1/4W 6. 8K	R701, 702	ERDS2TJ331	1/4W 330	C67, 68	ECBT1C472KR5	16V 4700P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C151	ECEAJU221	6. 3V 220U	C700, 701	ECEA1CKA100B	16V 10U			
C152	ECBT1E103ZF	25V 0. 01U	C703, 704	ECEA1CKA100B	16V 10U			
C153	ECAQJM102B	6. 3V 1000U	C705	ECEA1EKA4R7B	25V 4. 7U			
C154	ECBT1H331KB5	50V 330P	C710	ECEA1HKA010B	50V 1U			
C175	ECBT1H121KB5	50V 120P	C711	ECBT1E103ZF	25V 0. 01U			
C301	ECBT1E103ZF	25V 0. 01U	C801	ECBT1E223ZF	25V 0. 022U (DECK1)			
C302	ECEA1CKA100B	16V 10U	C802	ECBT1E223ZF	25V 0. 022U (DECK2)			
C303, 304	ECBT1C122KR5	16V 1200P	C803	ECEA1EKA101Q	25V 100U (DECK1)			
C305, 306	ECQB1H103JF3	50V 0. 01U	C804	ECEA1AKA101B	10V 100U (DECK1)			
C307, 308	ECQB1H223JF3	50V 0. 022U	C805	ECBT1H104ZF5	50V 0. 1U (DECK1)			
C309, 310	ECQV1H473JM3	50V 0. 047U	C806	ECBT1H104ZF5	50V 0. 1U (DECK2)			
C311, 312	ECBT1H121KB5	50V 120P	C807	ECEA1EKA101Q	25V 100U (DECK2)			
C313, 314	ECKR2H821KB5	500V 820P	C808	ECEA1AKA101B	10V 100U (DECK2)			
C315, 316	ECBT1E223ZF	25V 0. 022U	C811, 812	ECBT1H101KB5	50V 100P (DECK1)			
C317	ECBT1H220J5	50V 22P	C813	ECBT1H104ZF5	50V 0. 1U (DECK1)			
C318	ECQP1153J2	100V 0. 015U	C814	ECBT1H104ZF5	50V 0. 1U (DECK2)			
C320	ECBT1H220J5	50V 22P	C815, 816	ECBT1H101KB5	50V 100P (DECK2)			
C322	ECEA1AU221	10V 220U	C817	ECBT1H101KB5	50V 100P (DECK1)			
C323	ECBT1E103ZF	25V 0. 01U	C818	ECBT1H101KB5	50V 100P (DECK2)			
C324	ECEA1EKA4R7B	25V 4. 7U	C821	ECEAJKA221B	6. 3V 220U (DECK1)			
C325	ECKR1H392KB5	50V 3900P	C822	ECEAJKA221B	6. 3V 220U (DECK2)			
C326	ECEA1HKA0R1B	50V 0. 1U						
C327	ECKW1H222KB5	50V 2200P						
C328	ECKD1H682KB	50V 6800P						
C329	ECKW1H222KB5	50V 2200P						
C330	ECBT1E103ZF	25V 0. 01U						
C332, 333	ECBT1E103ZF	25V 0. 01U						
C401, 402	ECBT1C222KR5	16V 2200P						
C403, 404	ECBT1C182KR5	16V 1800P						
C405, 406	ECBT1C222KR5	16V 2200P						
C407, 408	ECQV1H154JM3	50V 0. 15U						
C409, 410	ECEA1HKA010B	50V 1U						
C411, 412	ECEA1HKA2R2B	50V 2. 2U						
C413, 414	ECEA1HKA010B	50V 1U						
C415, 416	ECQB1H152JF3	50V 1500P						
C417, 418	ECEA1HKAR47B	50V 0. 47U						
C419, 420	ECQB1H152JF3	50V 1500P						
C421, 422	ECEA1HKAR47B	50V 0. 47U						
C423, 424	ECBT1H820KB5	50V 82P						
C425, 426	ECBT1C682KR5	16V 6800P						
C601	ECEA1EU222B	25V 2200U Δ						
C602	ECA1EM221B	25V 220U						
C603, 604	ECA1EM102B	25V 1000U Δ						
C605	ECKR2H682PE	500V 6800P						
C606	ECBT1E103ZF	25V 0. 01U						
C607	ECEA1AU221	10V 220U						
C608-614	ECBT1E103ZF	25V 0. 01U						
C615	ECEA1CKA100B	16V 10U						
C616, 617	ECA1AM102B	10V 1000U						
C618	ECA1HM221B	50V 220U Δ						
C619	ECBT1E103ZF	25V 0. 01U						
C630	ECBT1E103ZF	25V 0. 01U						

Service Manual

SupplementDolby NR-Equipped
Stereo Double Cassette DeckCassette Deck
RS-TR373

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang and Olufsen. "DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Please file and use this supplement manual together with the service manual for Model No. RS-TR373, Order No. AD9401006C0 or AD9502057A3.

Note: • This supplement is intended to provide additional information or corrections to the existing service manual for model No. RS-TR373. Be sure to update your service manual for future reference.

Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada.	
(E)	Europe.	
(EB)	Great Britain.	
(EG)	Germany and Italy.	
(GC)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	
(GH)	Hong Kong.	

CHANGES

CHANGE IN REPLACEMENT PARTS LIST (RS-TR373 Service Manual Pages 57~60.)

Notes: • Important safety notice:

Components identified by \triangle mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

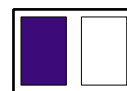
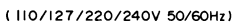
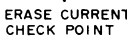
• The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.) Parts without these indications can be used for all areas.

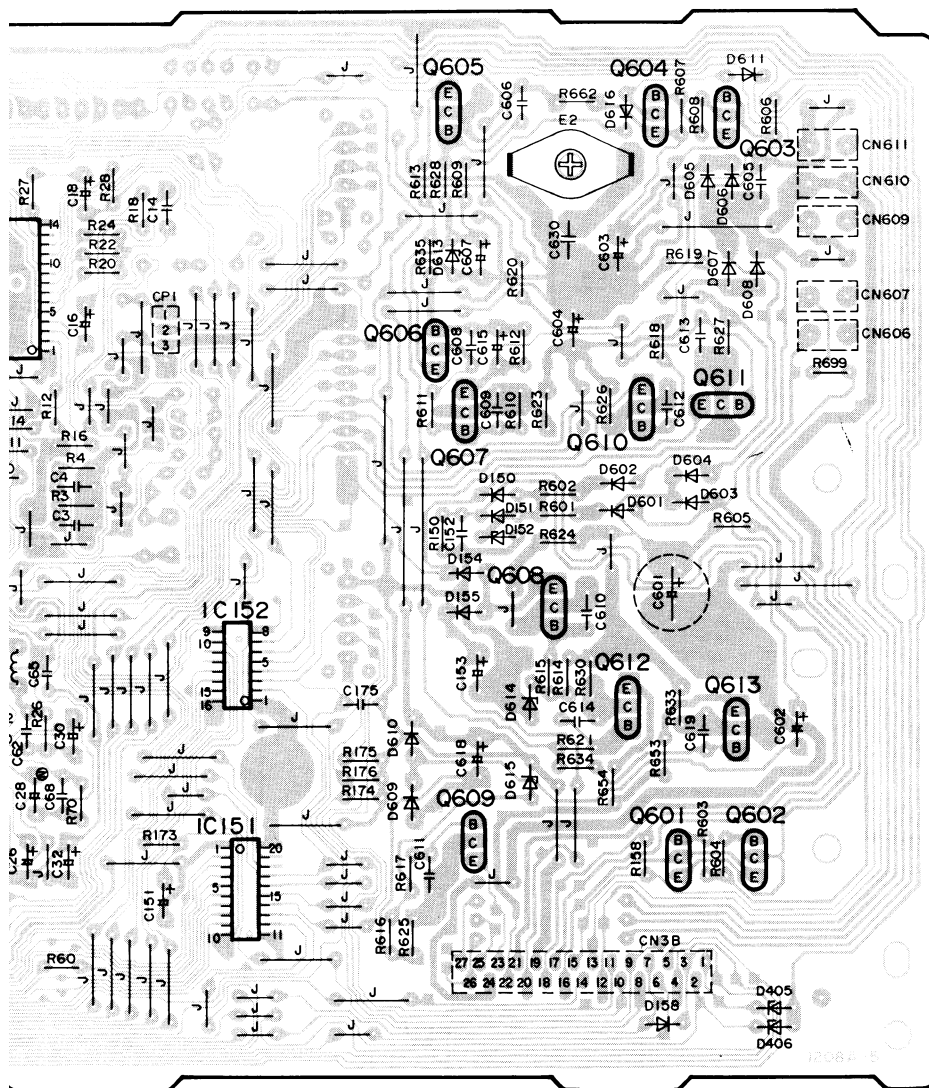
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	ORIGINAL	➡ NEW		
INTEGRATED CIRCUIT(S)				
IC152	XLU2040F-T1	BU2040F-T2	DATA CONTROL	
TRANSISTOR(S)				
Q401 – 404	2SC3311AIRTA	2SD1450RTA	TRANSISTOR	
Q703	DTC114YSTP	DTC124EST	TRANSISTOR	
Q704	DTC114YSTP	DTC124EST	TRANSISTOR	(P, PC)
Q705	DTC114YSTP	DTC124EST	TRANSISTOR	
Q706	DTC114YSTP	DTC124EST	TRANSISTOR	(P, PC)
Q802	2SA1309A-R	2SA1309AIRTA	TRANSISTOR (DECK 2)	
DIODE(S)				
D405, 406	—	MTZJ4R3BTA	DIODE	Addition
D803	MA723TA	—	DIODE (DECK 1)	Deletion
D804	MA723TA	—	DIODE (DECK 2)	Deletion

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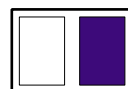
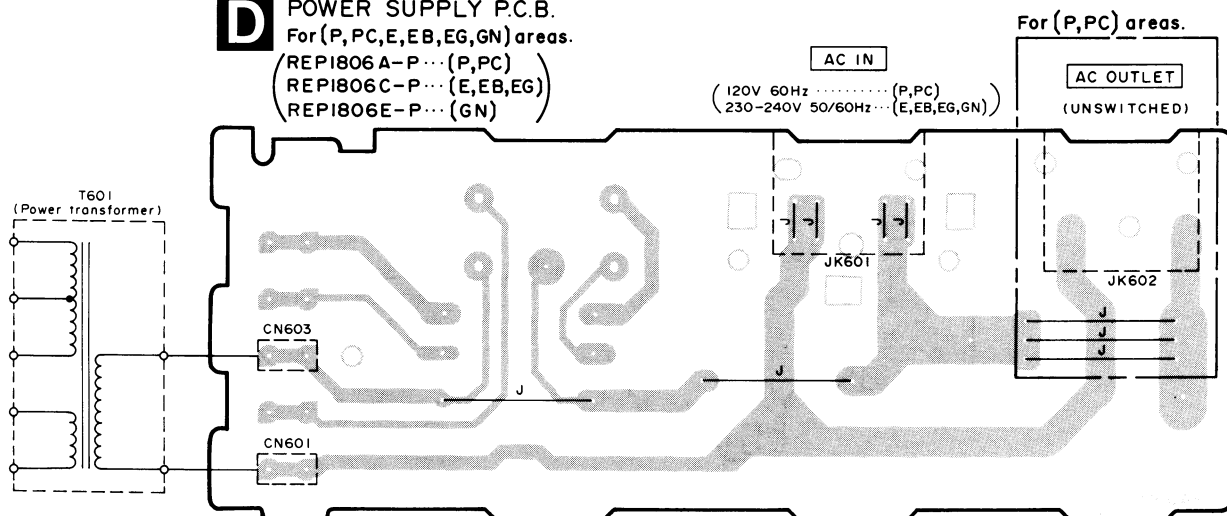
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Ref. No.	Change of Part No.		Part Name & Description	Remarks
	ORIGINAL	NEW		
CONNECTOR(S) AND SOCKET(S)				
CN802	RJT071H11A	—	CONNECTOR (11P) (DECK 2)	Deletion
CN804	RJR0113	RJS2A0205-2S	CONNECTOR (5P) (DECK 2)	
CN810	—	RJR0113	MOTOR CONNECTOR (4P) (DECK 2)	Addition
CP802	RJS2A0205-2S	RJT071H11A	CONNECTOR (11P) (DECK 2)	
JACK(S)				
JK602	RJS1A1602-1S	RJS1A1602-2S	AC OUTLET	(P, PC) △
RESISTORS				
R17, 18	ERDS2TJ474	ERDS2TJ394	1/4W 390kΩ	
R37	—	ERDS2TJ102	1/4W 1kΩ	Addition
R38	ERDS2TJ102	—	1/4W 1kΩ	Deletion
R410	ERDS2TJ223	ERDS2TJ472	1/4W 4.7kΩ	
R630	ERD2FCVJ6R8T	ERD2FCVJ4R7T	1/4W 4.7Ω	△
R633	ERD2FCVJ6R8T	ERD2FCVJ4R7T	1/4W 4.7Ω	△
R653, 654	—	ERDS2TJ1R0	1/4W 1.0Ω	Addition
CAPACITORS				
C7, 8	ECBA1H681KB5	ECBT1H561KB5	50V 560pF	
C13, 14	ECQB1H682JF3	ECQB1H822JF3	50V 8200pF	
C15, 16	ECEA1AU101	RCE1AKA101BG	10V 100μF	
C17	ECEA1HKAR47B	RCE1HKAR47BG	50V 0.47μF	
C18	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C21, 22	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C25, 26	ECEA1HKAR47B	RCE1HKAR47BG	50V 0.47μF	
C27, 28	ECEA1CN100SB	ECEA1CKN100B	16V 10μF	
C29-32	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C33, 34	ECEA1CKA220B	ECEA1EKA220B	25V 22μF	
C43, 44	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C63	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C151	ECEA0JU221	ECEA1AU221	10V 220μF	
C302	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C417, 418	ECEA1HKAR47B	RCE1HKAR47BG	50V 0.47μF	
C421, 422	ECEA1HKAR47B	RCE1HKAR47BG	50V 0.47μF	
C427	—	RCE1VKA100BG	35V 10μF	Addition
C430	—	ECBT1H104ZF5	50V 0.1μF	Addition
C601	ECEA1EU222B	ECA1EM222B	25V 2200μF	△
C602	ECA1EM221B	RCE1EM221BV	25V 220μF	
C615	ECEA1CKA100B	RCE1VKA100BG	35V 10μF	
C616, 617	ECA1AM102B	RCE1AM102BV	10V 1000μF	
C618	ECA1HM221B	RCE1HM221BV	50V 220μF	△
C700, 701	ECEA1CKA100B	RCE1CKA100BG	16V 10μF	
C703, 704	ECEA1CKA100B	RCE1CKA100BG	16V 10μF	
C803	ECEA1EKA101Q	ECEA1EKA101B	25V 100μF	(DECK 1)
C804	ECEA1AKA101B	RCE1AKA101BG	10V 100μF	(DECK 1)
C807	ECEA1EKA101Q	ECEA1EKA101B	25V 100μF	(DECK 2)
C808	ECEA1AKA101B	RCE1AKA101BG	10V 100μF	(DECK 2)
C821	ECEA0JKA221B	RCE0JKA221BV	6.3V 220μF	(DECK 1)
C822	ECEA0JKA221B	RCE0JKA221BV	6.3V 220μF	(DECK 2)

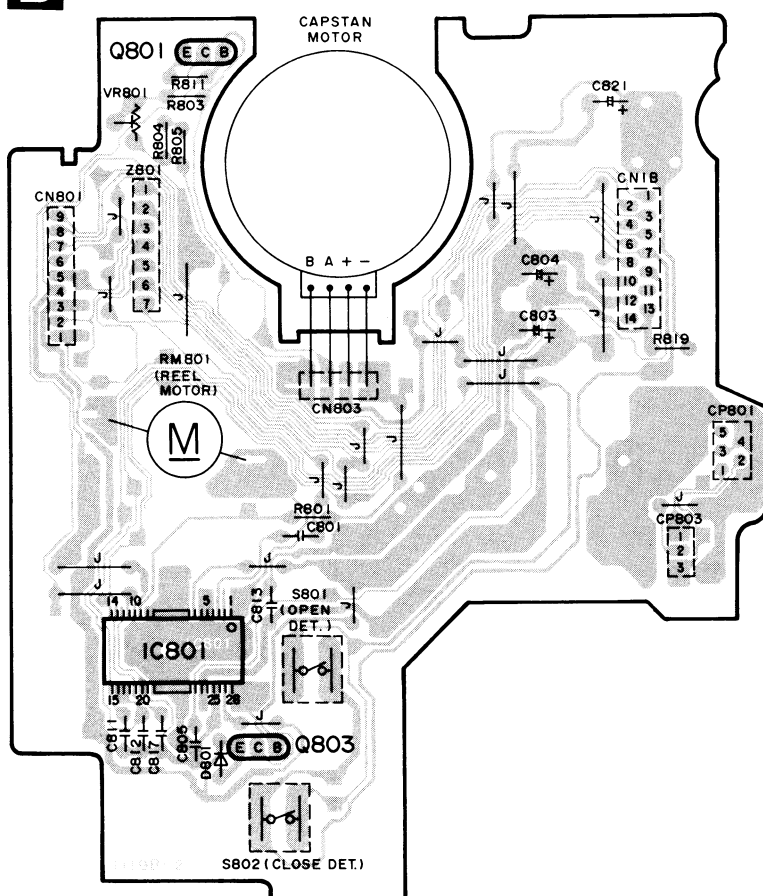




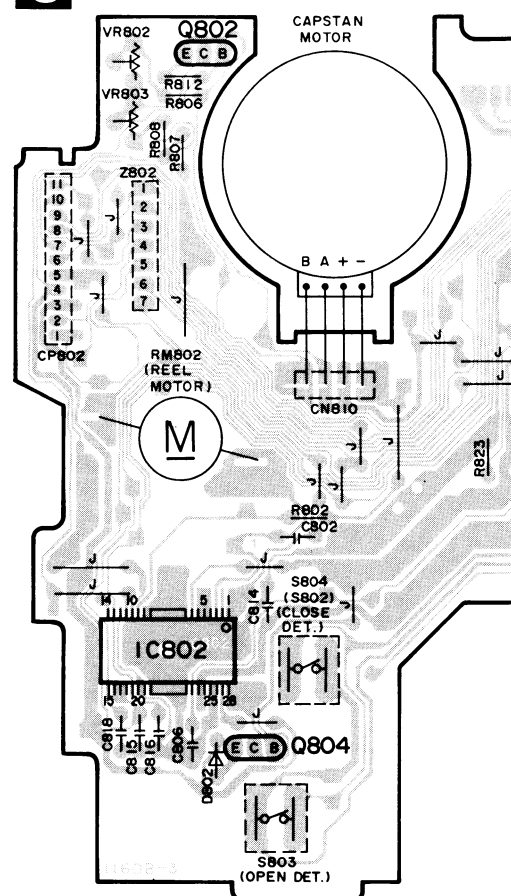
D POWER SUPPLY P.C.B.
For (P,PC,E,EB,EG,GN) areas.
(REPI806A-P... (P,PC)
(REPI806C-P... (E,EB,EG)
(REPI806E-P... (GN)



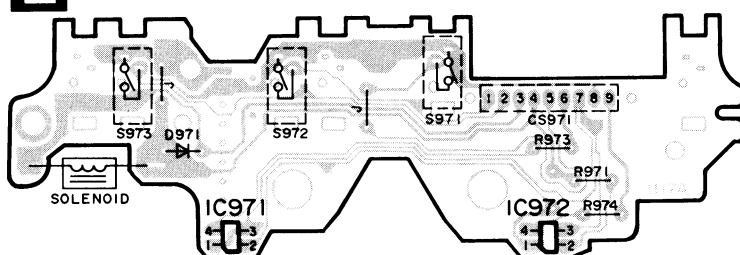
B MOTOR P.C.B. (DECK1) (REP1807A-T)



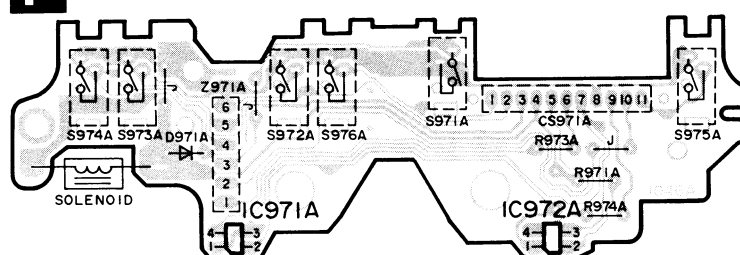
C MOTOR P.C.B. (DECK2) (REP1808A-T)



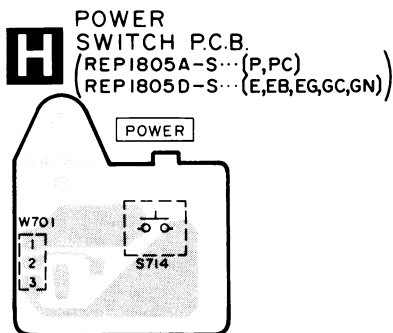
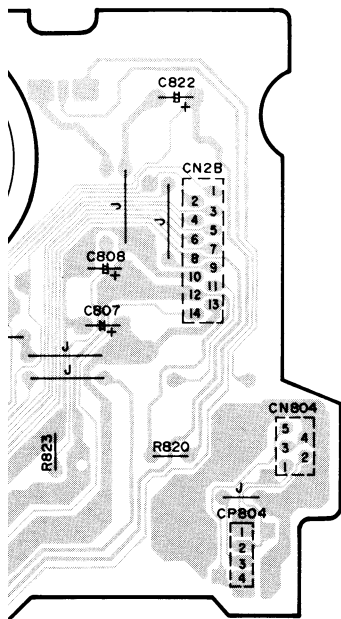
E MECHANISM P.C.B. (DECK1) (REP1655A)




F MECHANISM P.C.B. (DECK2) (REP1656A)

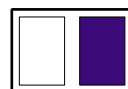


3A-T)

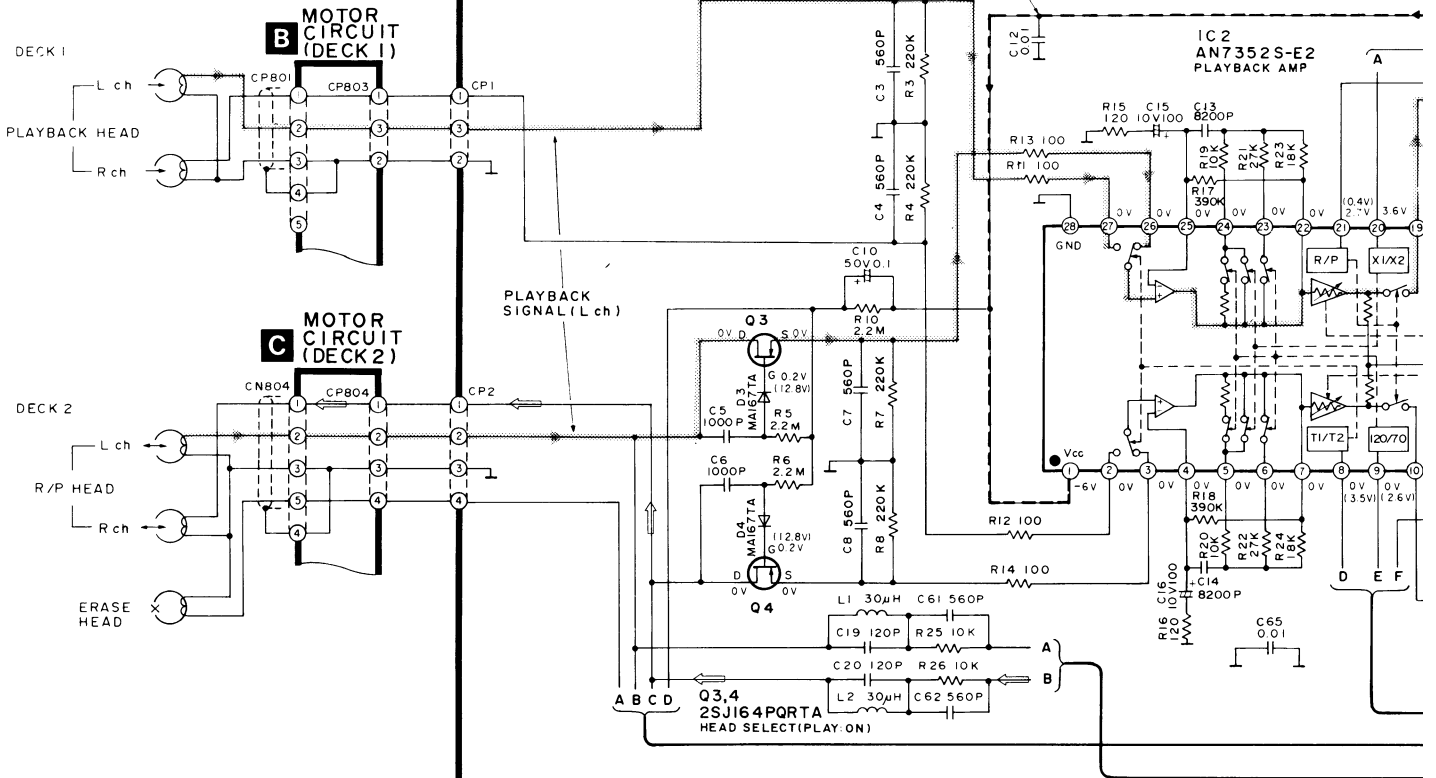


Notes:

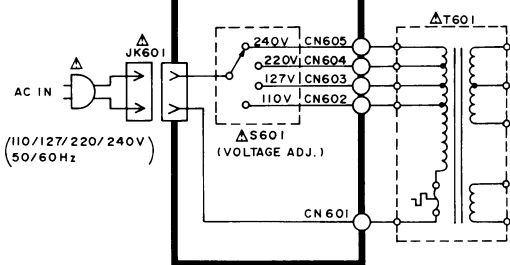
- In this printed circuit board diagram, the parts and foil patterns on the board facing toward you are printed in black.
The opposite side is printed in blue.
- The “●” mark denote the connection points of double-faced foil patterns (through holes) on both sides of the printed circuit board.
- The resistors enclosed in red boxes  in the PCB drawings are printed resistors.
- This printed circuit board diagram may be modified at any time with the development of new technology.



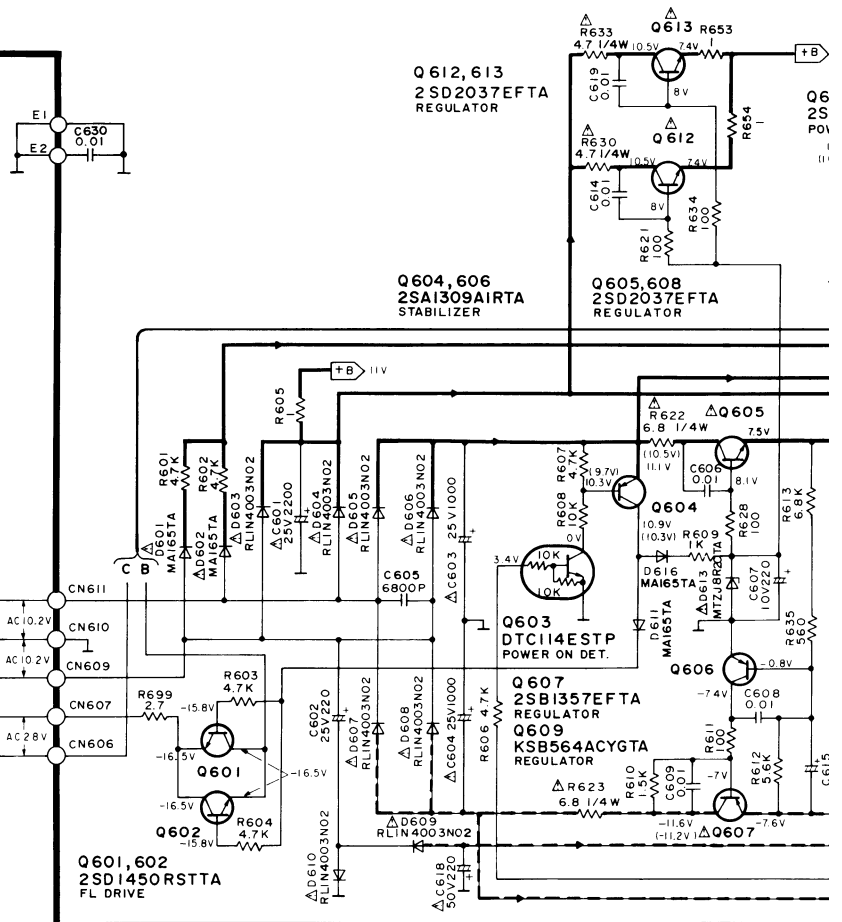
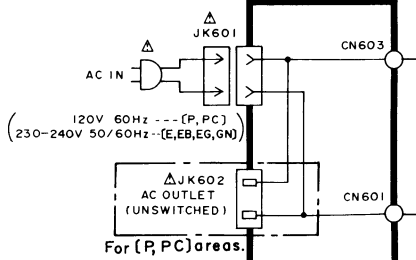
A MAIN CIRCUIT (PLAYBACK EQ AMP/POWER SUPPLY/DOLBY NR/HX PRO/BIA

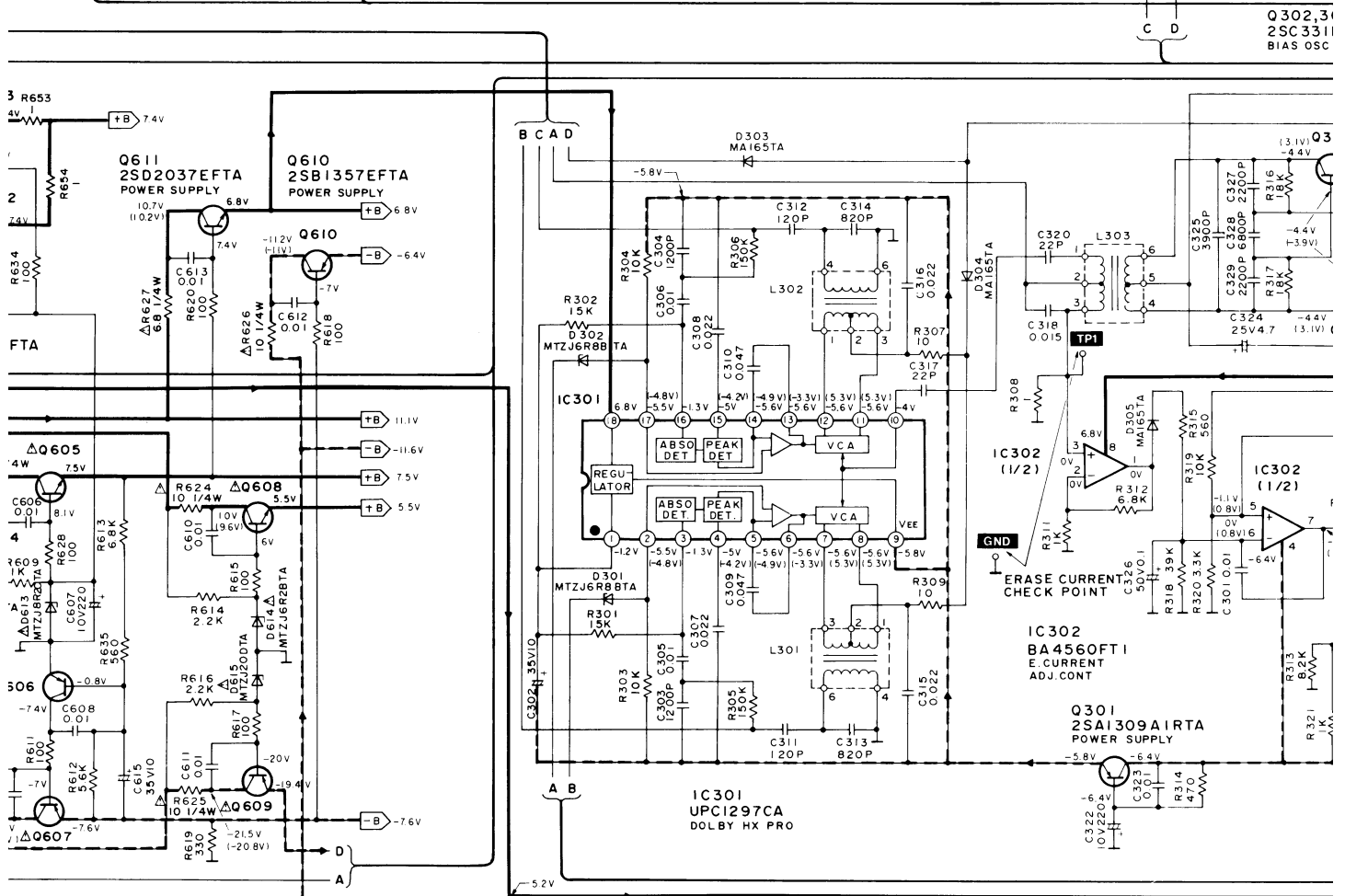
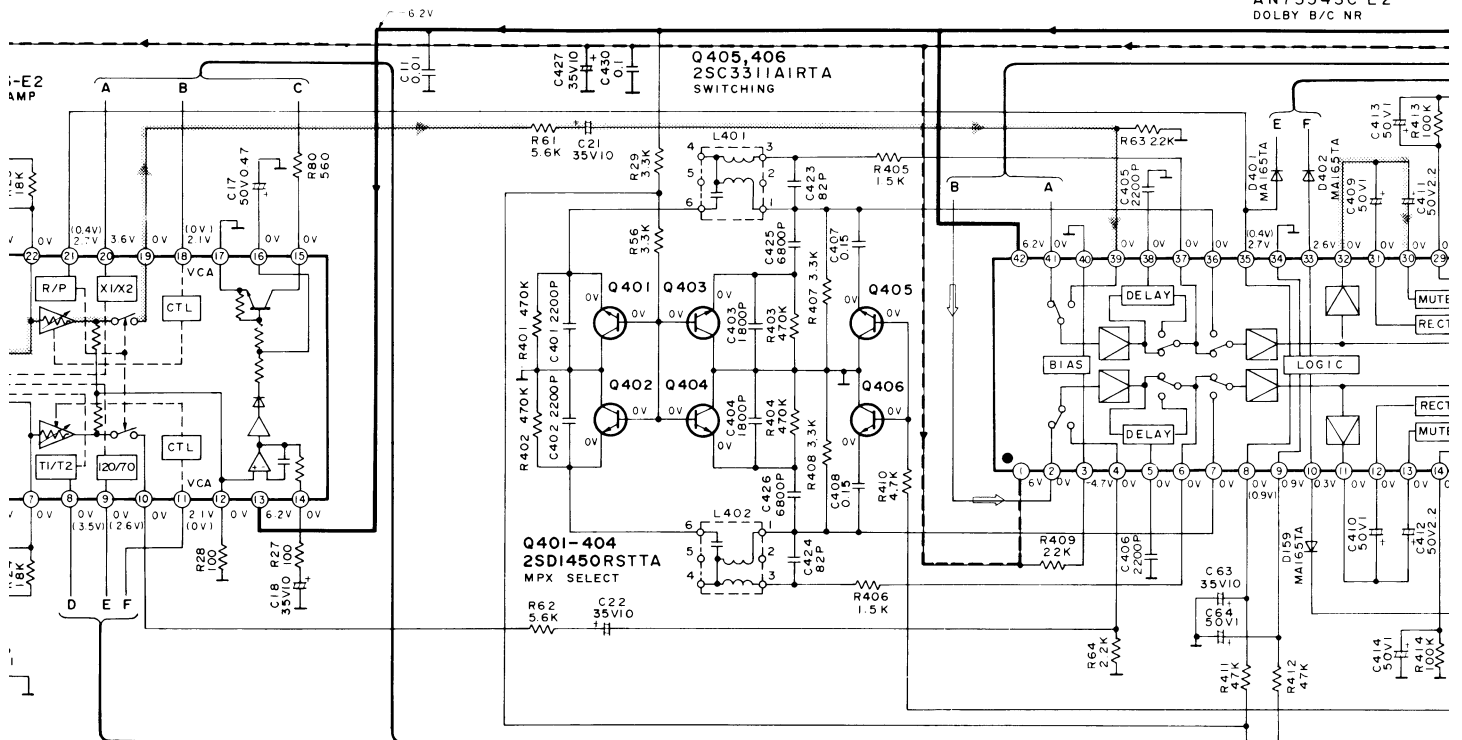


D POWER SUPPLY CIRCUIT For [GC,GH] areas.

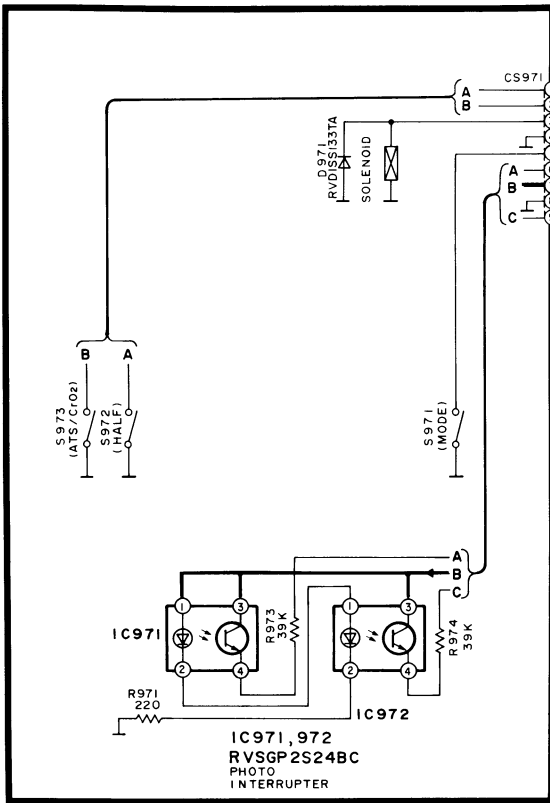


D POWER SUPPLY CIRCUIT For [P,PC,E,EB,EG,GN] areas.

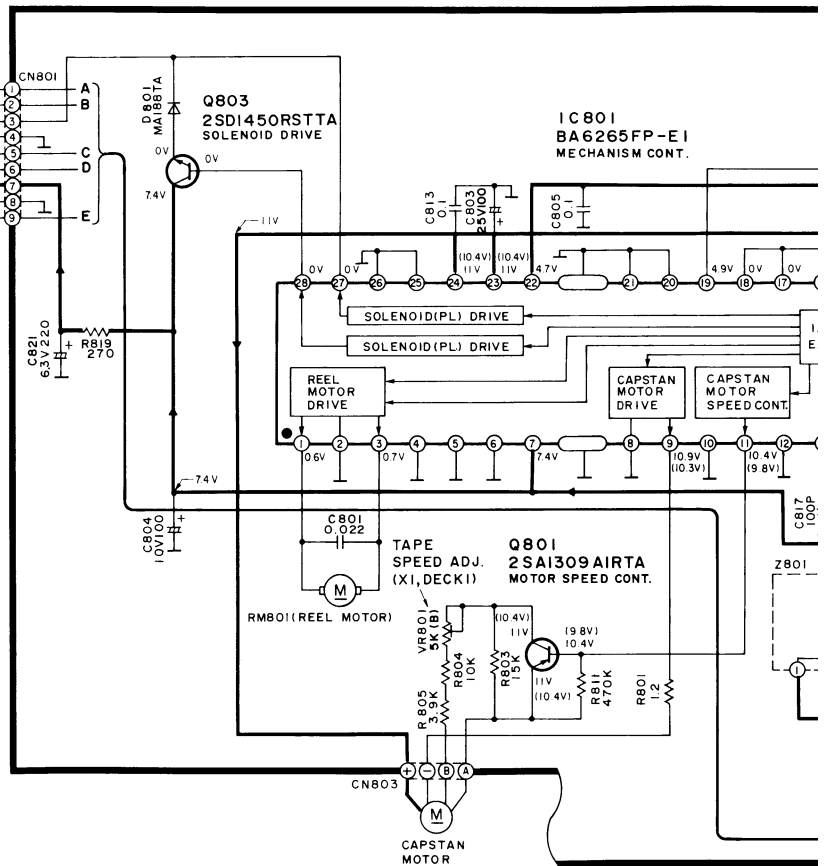




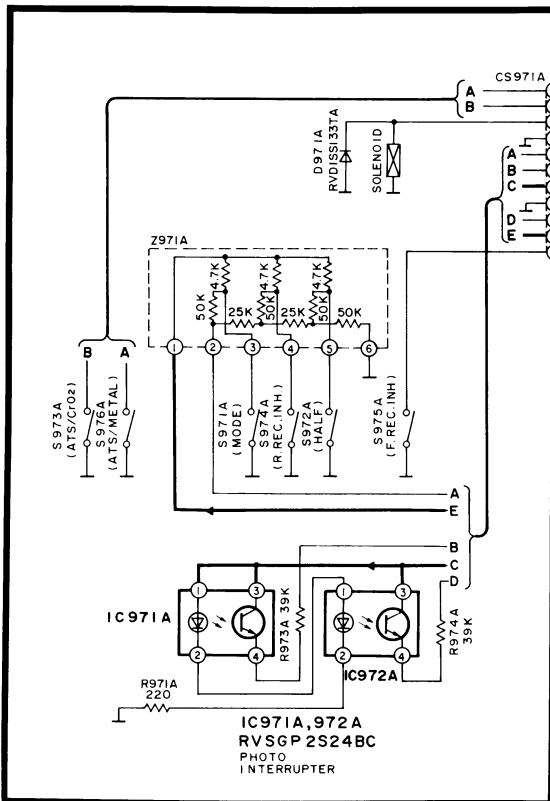
E MECHANISM CIRCUIT (DECK1)



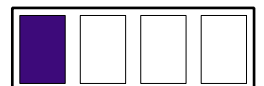
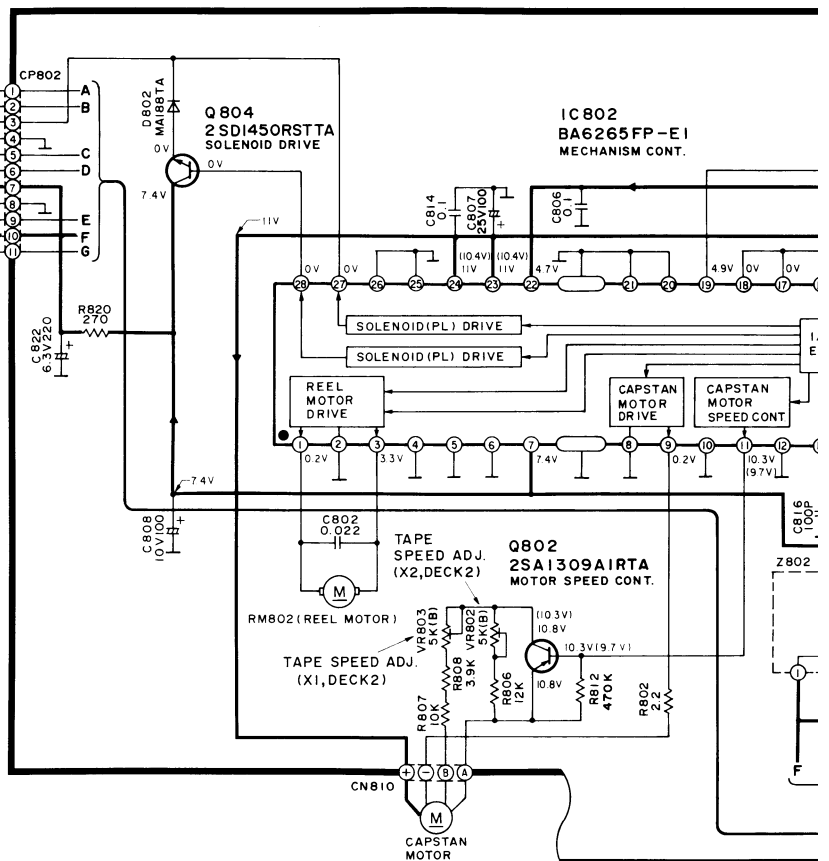
B MOTOR CIRCUIT (DECK1)



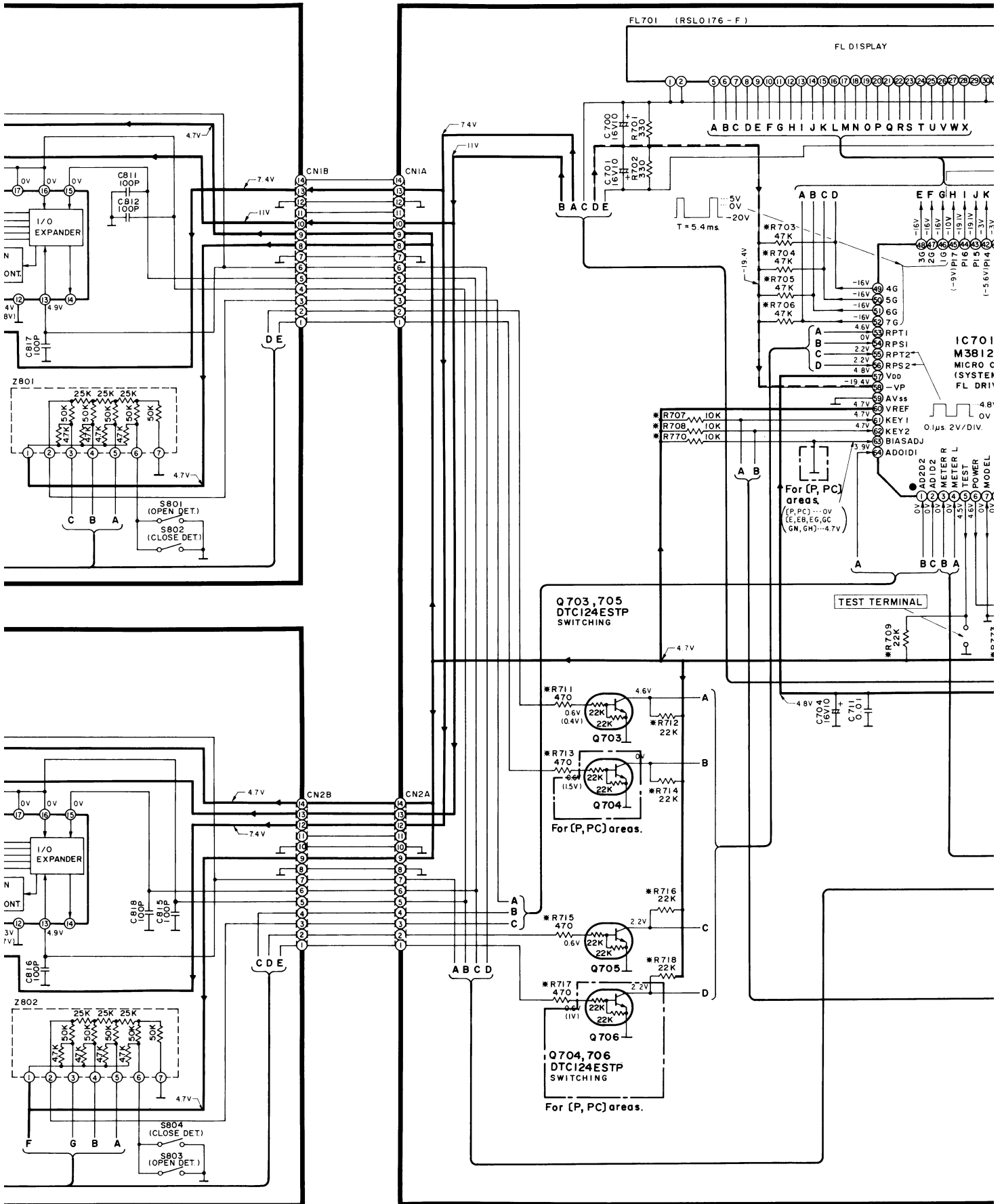
F MECHANISM CIRCUIT (DECK2)

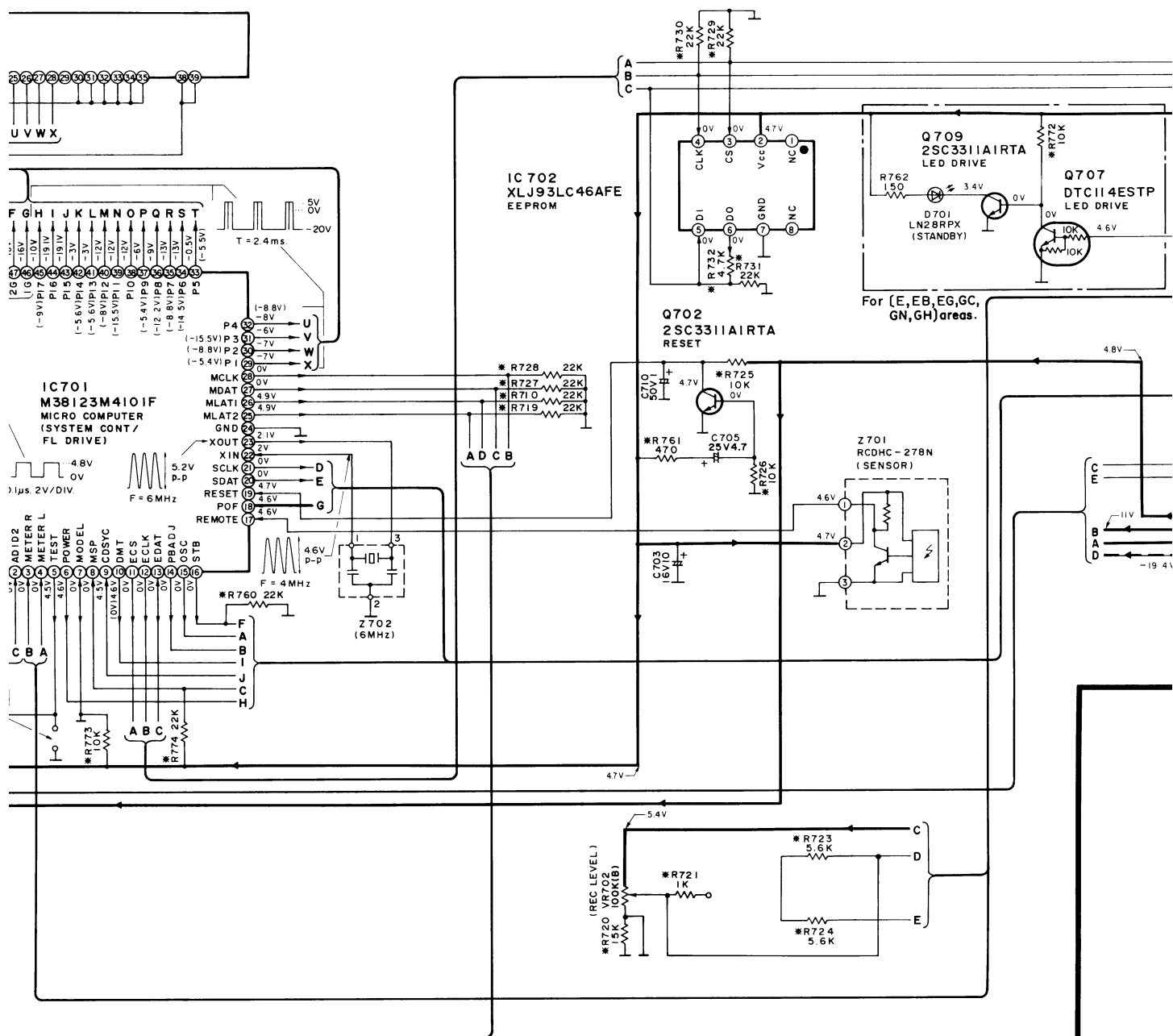


C MOTOR CIRCUIT (DECK2)



G OPERATION CIRCUIT





SCHEMATIC DIAGRAM

(RS-TR373 Service Manual Pages 39~46.)

(This schematic diagram may be modified at any time with the development of new technology.)

Notes:

- S601 : Voltage selector in "240V" position. (For [GC, GH] areas only.)
(110V ↔ 127V ↔ 220V ↔ 240V)
- S701 : Dolby noise-reduction switch (DOLBY NR; [B], [C]).
- S702 : DECK 2 Stop switch (■).
- S703 : DECK 2 Forward-side playback switch (▶).
- S704 : DECK 2 Reverse-side playback switch (◀).
- S705 : DECK 2 Fast-forward search switch (▶▶ TPS).
- S706 : DECK 2 Rewind search switch (◀◀ TPS).
- S707 : DECK 2 Open/close switch (▲ OPEN/CLOSE).
- S708 : DECK 2 Record switch (● REC).
- S709 : DECK 2 Pause switch (■ PAUSE).
- S710 : DECK 2 Automatic-record-muting switch (● AUTO REC MUTE).
- S712 : DECK 2 Counter reset switch (COUNTER 2 RESET).
- S714 : Power "STANDBY ⏻ /ON" switch (POWER, STANDBY ⏻ /ON).
- S715 : DECK 1 Stop switch (■).
- S716 : DECK 1 Forward-side playback switch (▶).
- S717 : DECK 1 Reverse-side playback switch (◀).
- S718 : DECK 1 Fast-forward search switch (▶▶ TPS).
- S719 : DECK 1 Rewind search switch (◀◀ TPS).
- S720 : DECK 1 Open/close switch (▲ OPEN/CLOSE).
- S721 : Auto tape calibration switch (ATC).
- S722 : Reverse-mode select switch (REVERSE MODE).
- S723 : Synchro-start switch (SYNCHRO START).
- S724 : Tape-to-tape recording-speed switch (SPEED; X1, X2).
- S725 : DECK 1 Counter reset switch (COUNTER 1 RESET)
- S801 : DECK 1 Cassette holder open detection switch in "off" position.
- S802 : DECK 1 Cassette holder close detection switch in "off" position.
- S803 : DECK 2 Cassette holder open detection switch in "off" position.
- S804 : DECK 2 Cassette holder close detection switch in "off" position.
- S971 : DECK 1 Mode switch in "off" position.
- S971A : DECK 2 Mode switch in "off" position.
- S972 : DECK 1 Half switch in "off" position.
- S972A : DECK 2 Half switch in "off" position.
- S973 : DECK 1 ATS (CrO₂) switch in "off" position.
- S973A : DECK 2 ATS (CrO₂) switch in "off" position.
- S974A : DECK 2 Reverse rec. inhibit switch in "off" position.
- S975A : DECK 2 Forward rec. inhibit switch in "off" position.
- S976A : DECK 2 ATS (Metal) switch in "off" position.
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
1K=1,000 (Ω), 1M=1,000k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
() Voltage values at record mode.
- For measurement us EVM.

Important safety notice

Components identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

- (———— < +B > ————) indicates +B (bias).
- (- - - - < -B > - - - -) indicates -B (bias).
- (———— >) indicates the flow of the playback signal.
- (———— >) indicates the flow of the record signal.
- The supply part number is described alone in the replacement parts list,

Ref. No.	Production Part No.	Supply Part No.
IC302	BA4560FT1	SVIBA4560FT1

※ marks indicate printed resistor.

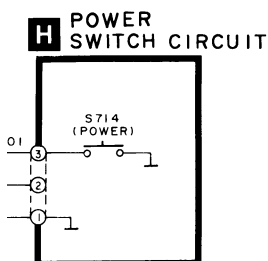
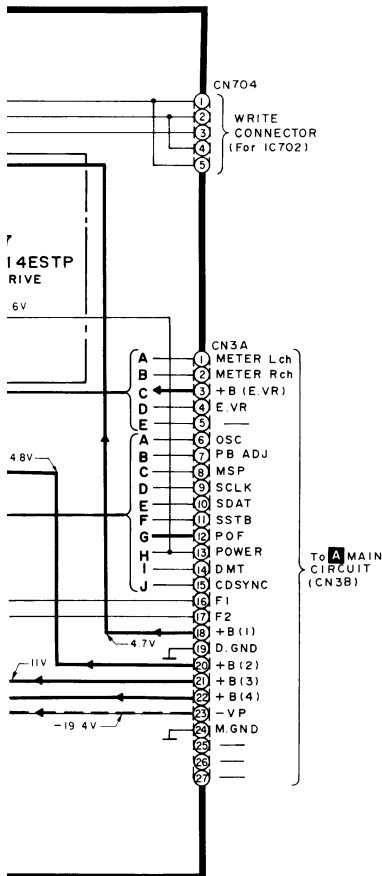
Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

Printed in Japan
40519T014
31227T003
40126T002
H950214500 NH/HH/KK



Service Manual

Cassette Deck

RS-TR373**Supplement**Dolby NR-Equipped
Stereo Double Cassette Deck

Colour

(K)...Black Type

**DOLBY B·C NR HX PRO**

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Please file and use this Service manual together with the service manual for Model No. RS-TR474, Order No. AD9401007C5, and the supplement service manual for Model No. RS-TR474, Order No. AD9510251S5.

Note: • This service manual is intended to provide additional information or corrections to the existing supplement service manual for model No. RS-TR474 (E). Be sure to update your service manual for future reference.

Areas

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada.	
(E)	Europe.	
(EB)	Great Britain.	
(EG)	Germany and Italy.	
(GC)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	
(GH)	Hong Kong.	

CHANGES**CHANGE IN REPLACEMENT PARTS LIST (RS-TR474 Supplement Service Manual Pages: 44, 45, 50~55.)**


Notes: • Important safety notice:

Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.


When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.





- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.) Parts without these indications can be used for all areas.
- The "(SF)" mark denotes the standard part.
- [V] indicates in Remarks columns parts that are supplied by Video Recorder Division.


Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-TR474 (E)	 RS-TR373 (P, PC, E, EB, EG, GC, GN, GH)		
INTEGRATED CIRCUIT (S)				
IC3	M5218AL	—	HEADPHONES AMP	Deletion
IC302	UPC1297CA	—	DOLBY HX PRO (DECK2)	(E, EB, EG, GC, GN, GH) Deletion
TRANSISTOR (S)				
Q11, 12	2SJ164PQRTA	—	TRANSISTOR	Deletion
Q301, 302	—	2SK1103PQRTX	TRANSISTOR (DECK2)	(E, EB, EG, GC, GN, GH) Addition
Q307	KSB564ACYGTA	—	TRANSISTOR (DECK2)	(E, EB, EG, GC, GN, GH) Deletion
Q610	2SB1548PQAU	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) ⚠ Deletion

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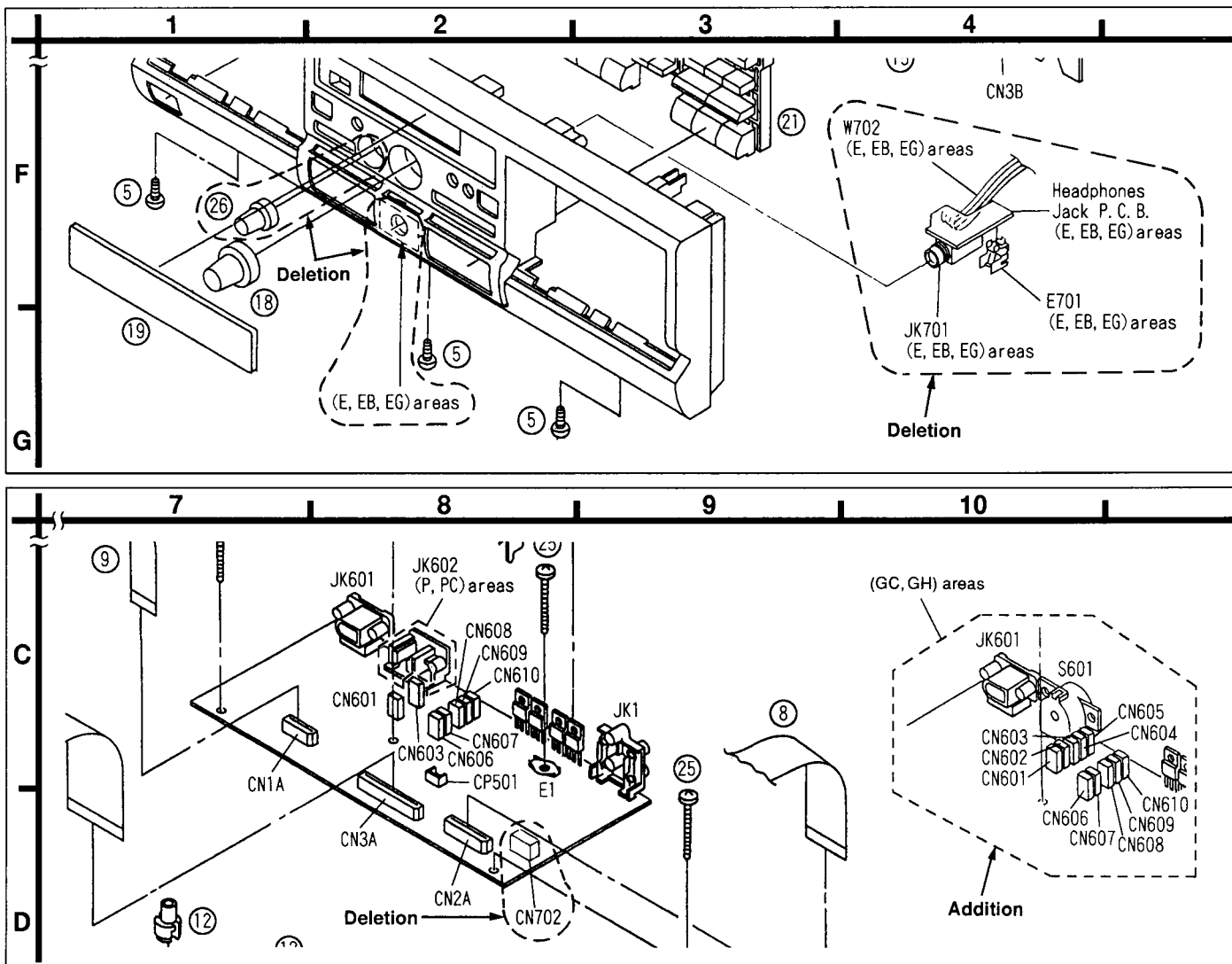
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-TR474 (E)	 RS-TR373 (P, PC, E, EB, EG, GC, GN, GH)		
Q701	DTC114ESTP	—	TRANSISTOR	(P, PC) Deletion
Q702	2SC3311AIRTA	—	TRANSISTOR	(P, PC) Deletion
Q703	2SC3311AIRTA	—	TRANSISTOR	Deletion
Q819	2SA1309AIRTA	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
Q820	KSB564ACYGTA	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
Q821	DTA114ESTP	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
Q869	KSB564ACYGTA	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
Q870	2SA1309AIRTA	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
Q871	DTA114ESTP	—	TRANSISTOR	(E, EB, EG, GC, GN, GH) Deletion
DIODE (S)				
D301, 302	MA8056MTX	—	DIODE (DECK2)	(E, EB, EG, GC, GN, GH) Deletion
D303	MA110TX	—	DIODE (DECK2)	(E, EB, EG, GC, GN, GH) Deletion
D307	—	MA111TX	DIODE (DECK2)	(E, EB, EG, GC, GN, GH) Addition
D331	—	MA111TX	DIODE (DECK2)	(E, EB, EG, GC, GN, GH) Addition
D624	MTZJ8R2ATA	—	DIODE	(E, EB, EG, GC, GN, GH) Deletion
D701	LN28RPX	—	L.E.D.	(P, PC) Deletion
D805	RL1N4003N02	—	DIODE	(E, EB, EG, GC, GN, GH) Deletion
D855	RL1N4003N02	—	DIODE	(E, EB, EG, GC, GN, GH) Deletion
VARIABLE RESISTOR (S)				
VR702	EVJ02SFA7G15	—	BALANCE CONTROL	Deletion
COIL (S)				
L301, 302	SL09B1-Z	—	COIL (HX PRO ADJ.) (DECK2)	(E, EB, EG, GC, GN, GH) Deletion
TRANSFORMER (S)				
T601	RTP1K4B026-V	RTP1K4C022-V	POWER TRANSFORMER	(P, PC) ⚠
		RTP1K4E032-V	POWER TRANSFORMER	(GC, GH) ⚠
SWITCH (ES)				
S601	—	RSR4A001S-H	VOLTAGE ADJ.	(GC, GH) ⚠ Addition
S713	EVQ21405R	—	ATC	Deletion
CONNECTOR (S) AND SOCKET (S)				
CN301	RJU057W010	—	SOCKET (10P) (DECK2)	(E, EB, EG, GC, GN, GH) Deletion

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-TR474 (E)	 RS-TR373 (P, PC, E, EB, EG, GC, GN, GH)		
CN602	—	RJS1A1101T1	CONNECTOR (1P)	(GC, GH) Addition
CN604	—	RJS1A1101T1	CONNECTOR (1P)	(GC, GH) Addition
CN605	—	RJS1A1101T1	CONNECTOR (1P)	(GC, GH) Addition
CN702	RJS1A1703	—	CONNECTOR (3P)	Deletion
CP301	RJT057W010-1	—	CONNECTOR (10P)(DECK2)	(E, EB, EG, GC, GN, GH) Deletion
JACK (S)				
JK601	SJS9236	SJSD16-1	AC INLET	(P, PC, GN) 
JK602	—	RJS1A1602-2S	AC OUTLET	(P, PC)  Addition
JK701	SJJ146B	—	HEADPHONES JACK	Deletion
GND PART (S)				
E701	RMC0234	—	GND PLATE, H.P. JACK	Deletion
FLAT CABLE (S)				
W702	REZ0824	—	FLAT CABLE (3P)	Deletion
RESISTORS				
R43, 44	ERDS2TJ101	—	1/4W 100Ω	Deletion
R51,52	ERDS2TJ225	—	1/4W 2.2MΩ	Deletion
R53	ERDS2TJ102	—	1/4W 1KΩ	Deletion
R303,304	—	ERJ6GEYJ392V	1/10W 3.9KΩ	(E, EB, EG, GC, GN, GH) Addition
R305, 306	—	ERJ6GEYJ224V	1/10W 220KΩ	(E, EB, EG, GC, GN, GH) Addition
R307, 308	—	ERJ6GEYJ225V	1/10W 2.2MΩ	(E, EB, EG, GC, GN, GH) Addition
R309,310	—	ERJ6GEYJ393V	1/10W 39KΩ	(E, EB, EG, GC, GN, GH) Addition
R341,342	ERJ6GEYJ153V	—	1/10W 15KΩ	(E, EB, EG, GC, GN, GH) Deletion
R343, 344	ERJ6GEYJ103V	—	1/10W 10KΩ	(E, EB, EG, GC, GN, GH) Deletion
R345, 346	ERJ6GEYJ154V	—	1/10W 150KΩ	(E, EB, EG, GC, GN, GH) Deletion
R347, 348	ERJ6GEYJ100	—	1/10W 10Ω	(E, EB, EG, GC, GN, GH) Deletion
R349	ERJ6GEYJ471V	—	1/10W 470Ω	(E, EB, EG, GC, GN, GH) Deletion
R351, 352	—	ERJ6GEYJ103V	1/10W 10KΩ	(E, EB, EG, GC, GN, GH) Addition
R353, 354	—	ERJ6GEYJ223V	1/10W 22KΩ	(E, EB, EG, GC, GN, GH) Addition
R355, 356	—	ERJ6GEYJ332V	1/10W 3.3KΩ	(E, EB, EG, GC, GN, GH) Addition
R624	ERDS2TJ391	—	1/4W 390Ω	(E, EB, EG, GC, GN, GH) Deletion
R625	ERD2FCVJ4R7T	—	1/4W 4.7Ω	(E, EB, EG, GC, GN, GH)  Deletion
R626	ERDS2TJ101	—	1/4W 100Ω	(E, EB, EG, GC, GN, GH) Deletion
R701, 702	ERDS2TJ103	—	1/4W 10KΩ	(P, PC) Deletion
R703	ERDS2TJ181T	—	1/4W 180Ω	(P, PC) Deletion
R704	ERDS2TJ153	ERDS2TJ472	1/4W 4.7KΩ	
R705, 706	ERDS2TJ102	—	1/4W 1KΩ	Deletion
R707, 708	ERDS2TJ562	—	1/4W 5.6KΩ	Deletion

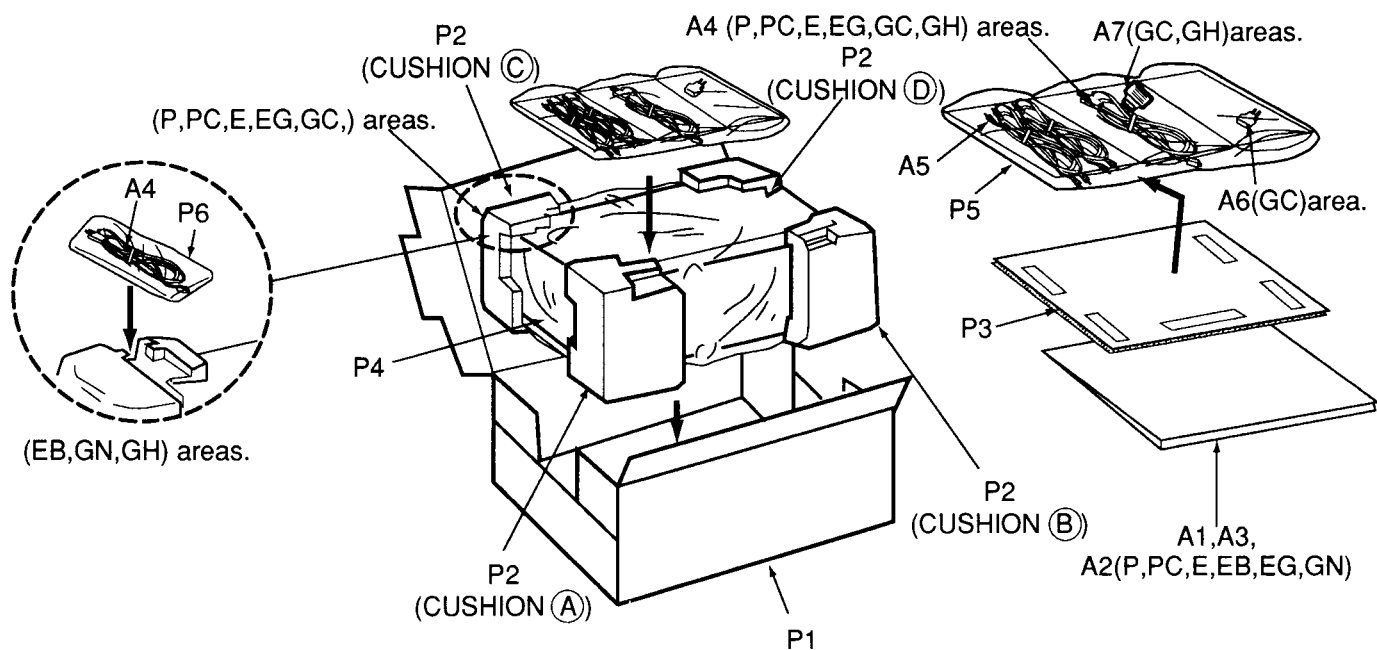
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-TR474 (E)	 RS-TR373 (P, PC, E, EB, EG, GC, GN, GH)		
R709	—	ERDS2TJ223	1/4W 22KΩ	Addition
R710	—	ERDS2TJ823T	1/4W 82KΩ	Addition
R824	ERDS2TJ333	—	1/4W 33KΩ	(E, EB, EG, GC, GN, GH) Deletion
R825	ERDS2TJ203T	—	1/4W 20KΩ	(E, EB, EG, GC, GN, GH) Deletion
R826	ERDS2TJ183T	—	1/4W 18KΩ	(E, EB, EG, GC, GN, GH) Deletion
R874	ERDS2TJ333	—	1/4W 33KΩ	(E, EB, EG, GC, GN, GH) Deletion
R875	ERDS2TJ183T	—	1/4W 18KΩ	(E, EB, EG, GC, GN, GH) Deletion
R876	ERDS2TJ203T	—	1/4W 20KΩ	(E, EB, EG, GC, GN, GH) Deletion
CAPACITORS				
C39, 40	ECBT1E103ZF	—	25V 0.01UF	Deletion
C301, 302	—	ECUV1H101KCN	50V 100PF	(E, EB, EG, GC, GN, GH) Addition
C321, 322	—	ECUV1H102KBN	50V 1000PF	(E, EB, EG, GC, GN, GH) Addition
C323, 324	—	ECUV1H221KBN	50V 220PF	(E, EB, EG, GC, GN, GH) Addition
C341, 342	ECUV1H122KBN	—	50V 1200PF	(E, EB, EG, GC, GN, GH) Deletion
C343, 344	ECUV1H103KBN	—	50V 0.01UF	(E, EB, EG, GC, GN, GH) Deletion
C345, 346	ECUV1E473KBN	—	25V 0.047UF	(E, EB, EG, GC, GN, GH) Deletion
C347, 348	ECUV1H121KCN	—	50V 120PF	(E, EB, EG, GC, GN, GH) Deletion
C349, 350	ECKR2H821KB5	—	500V 820PF	(E, EB, EG, GC, GN, GH) Deletion
C351, 352	ECUV1E473ZFN	—	25V 0.047UF	(E, EB, EG, GC, GN, GH) Deletion
C353, 354	ECUV1H220KCN	—	50V 22PF	(E, EB, EG, GC, GN, GH) Deletion
C355	ECUV1H103ZFN	—	50V 0.01UF	(E, EB, EG, GC, GN, GH) Deletion
C356	ECEA1AKS470	—	10V 47UF	(E, EB, EG, GC, GN, GH) Deletion
C357, 358	ECUV1E473ZFN	—	25V 0.047UF	(E, EB, EG, GC, GN, GH) Deletion
C360, 361	ECUV1E223KBN	—	25V 0.022UF	(E, EB, EG, GC, GN, GH) Deletion
C362	RCE1CKA100BG	—	16V 10UF	(E, EB, EG, GC, GN, GH) Deletion
C615	ECBT1E103ZF	—	25V 0.01UF	(E, EB, EG, GC, GN, GH) Deletion
C702	ECBT1E103ZF	—	25V 0.01UF	Deletion
C703-705	ECBT1E103ZF	—	25V 0.01UF	Deletion
C711	ECEA1HKA010B	—	50V 1UF	Deletion
C805	ECBT1E103ZF	—	25V 0.01UF	(E, EB, EG, GC, GN, GH) Deletion

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-TR474 (E)	RS-TR373 (P, PC, E, EB, EG, GC, GN, GH)		
C806	ECEA1AKA220B	—	10V 22UF	(E, EB, EG, GC, GN, GH) Deletion
C855	ECBT1E103ZF	—	25V 0.01UF	(E, EB, EG, GC, GN, GH) Deletion
C856	ECEA1AKA220B	—	10V 22UF	(E, EB, EG, GC, GN, GH) Deletion
CABINET AND CHASSIS				
3	RYF0262A-K	RYF0262D-K	CASSETTE LID (DECK1)	(E, EB, EG, GC, GN, GH)
4	RYF0262B-K	RYF0262J-K	CASSETTE LID (DECK2)	(E, EB, EG, GC, GN, GH)
10	RGR0228B-A1	RGR0228A-C	REAR PANEL	(P)
		RGR0228B-C1	REAR PANEL	(E, EG)
		RGR0228B-D	REAR PANEL	(EB, GN)
		RGR0228A-D	REAR PANEL	(PC)
		RGR0228C-A1	REAR PANEL	(GC)
		RGR0228C-B1	REAR PANEL	(GH)
17	RFKGSTR474EZ	RFKGSTR373PK	FRONT PANEL ASS'Y	
19	RKW0326B-R	RKW0326-R	TRANSPARENT PLATE	(P, PC)
21	RGU1023A-K	RFKNSTR373CK	BUTTON ASS'Y, OPERATION	
26	RGW0198-K	—	KNOB, BALANCE	Deletion
MECHANISM PARTS				
DECK2				
201	RXF0040	RXF0045	FLYWHEEL (F) ASS'Y	(P, PC)
202	RXF0047	RXF0046	FLYWHEEL (R) ASS'Y	(P, PC)
207	RDV0015	RDV108ZA	BELT	(P, PC)
PACKING MATERIAL				
P1	RPG1914	RPG1908	PACKING CASE	(P, PC, GC)
		RPG1911	PACKING CASE	(E, EG)
		RPG1912	PACKING CASE	(EB)
		RPG2065-1	PACKING CASE	(GN, GH)
P2	RPN0664-1	RPN0665	CUSHION	(EB, GN, GH)
P4	XZB50X65A02	XZB50X65A02Z	PROTECTION COVER (THIS UNIT)	
P6	—	RPH0032	MIRROR SHEET	(EB, GN, GH) Addition
ACCESSORIES				
A1	RFKSSTR373E	RFKSSTR373EG	INSTRUCTION MANUAL ASS'Y	(EG)
		RFKSSTR373GC	INSTRUCTION MANUAL ASS'Y	(GC)
		RFKSSTR373GH	INSTRUCTION MANUAL ASS'Y	(GH)
		RFKSSTR373PC	INSTRUCTION MANUAL ASS'Y	(PC)
		RQT2233-P	INSTRUCTION MANUAL	(P)
		RQT2237-B	INSTRUCTION MANUAL	(EB, GN)
A2	RQA0117	RQA0114	WARRANTY CARD	(P)
		SQX7183	WARRANTY CARD	(PC)
		RQX7433ZA	WARRANTY CARD	(GN)
A3	RQCB0169	RQCB0391	SERVICENTER LIST	(P)
		SQX9131	SERVICENTER LIST	(PC)
A4	RJA0019-2K	RJA0036-K	AC POWER SUPPLY CORD	(GN) ⚠
		SJA172	AC POWER SUPPLY CORD	(P, PC) ⚠ (SF)
		VJA0733	AC POWER SUPPLY CORD	(EB, GH) ⚠ (SF) [V]
A6	—	SJP5213-2	POWER PLUG ADAPTER	(GC) ⚠ Addition
A7	—	RQLA0134	CAUTION LABEL (VOL. SELECTOR)	(GC, GH) Addition

■ CABINET PARTS LOCATION (RS-TR474 Supplement Service Manual Pages: 42, 43.)



■ PACKAGING



























<CUSHION (A), (B), (C), (D) Part No.: RPN0664-1 (P, PC, E, EG, GC), RPN0665 (EB, GN, GH)>

■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

Note:

- S601: Voltage selector in "240 V" position. (For [GC, GH] areas only.)
(110 V ↔ 127 V ↔ 220 V ↔ 240 V)
- S701: Power "STANDBY  /ON" (POWER, STANDBY  ON) switch.
- S702: Stop (DECK 1) () switch.
- S703: Forward-side playback switch (). (DECK 1)
- S704: Reverse-side playback switch (). (DECK 1)
- S705: Fast-forward search switch ( TPS). (DECK 1)
- S706: Rewind search switch ( TPS). (DECK 1)
- S707: Open/close switch ( OPEN/CLOSE). (DECK 1)
- S708: Dolby noise-reduction switch (DOLBY NR;  , ).
- S709: Reverse-mode select switch (REVERSE MODE).
- S710: Synchro-start switch (SYNCHRO START).
- S711: Tape-to-tape recording-speed switch (SPEED; X1, X2).
- S712: Counter reset switch (COUNTER 2 RESET). (DECK 2)
- S714: Stop (DECK 2) () switch.
- S715: Forward-side playback switch (). (DECK 2)
- S716: Reverse-playback switch (). (DECK 2)
- S717: Fast-forward search switch ( TPS). (DECK 2)
- S718: Rewind search switch ( TPS). (DECK 2)
- S719: Open/close switch ( OPEN/CLOSE). (DECK 2)
- S720: Record switch ( REC). (DECK 2)
- S721: Pause switch ( PAUSE). (DECK 2)
- S722: Automatic-record-muting switch ( AUTO REC MUTE). (DECK 2)
- S723: Counter reset switch (COUNTER 1 RESET). (DECK 1)
- S801: DECK 1 Cassette holder open detection switch in "off" position.
- S802: DECK 1 Cassette holder close detection switch in "off" position.
- S851: DECK 2 Cassette holder open detection switch in "off" position.
- S852: DECK 2 Cassette holder close detection switch in "off" position.
- S971: DECK 1 Mode switch in "off" position.
- S971A: DECK 2 Mode switch in "off" position.
- S972: DECK 1 Half switch in "off" position.
- S972A: DECK 2 Half switch in "off" position.
- S973: DECK 1 ATS (CrO₂) switch in "off" position.
- S973A: DECK 2 ATS (CrO₂) switch in "off" position.
- S974A: DECK 2 Reverse rec. inhibit switch in "off" position.
- S975A: DECK 2 Forward rec. inhibit switch in "off" position.
- S976A: DECK 2 ATS (Metal) switch in "off" position.
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
1K=1,000 (Ω), 1M=1,000k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
().....Voltage values at record mode.
For measurement us EVM.
- Important safety notice:
Components identified by  mark have special characteristics important for safety.
When replacing any of components, be sure to use only manufacturer's specified parts.
- () indicates +B (bias).
- () indicates -B (bias).
- () indicates the playback signal.
- () indicates the recording signal.
- The supply part number is described alone in the replacement parts list.

Part No.	Production Part No.	Supply Part No.
IC4	BA4560FT1	SVIBA4560FT1

Caution!

IC and LSI are sensitive to static electricity.

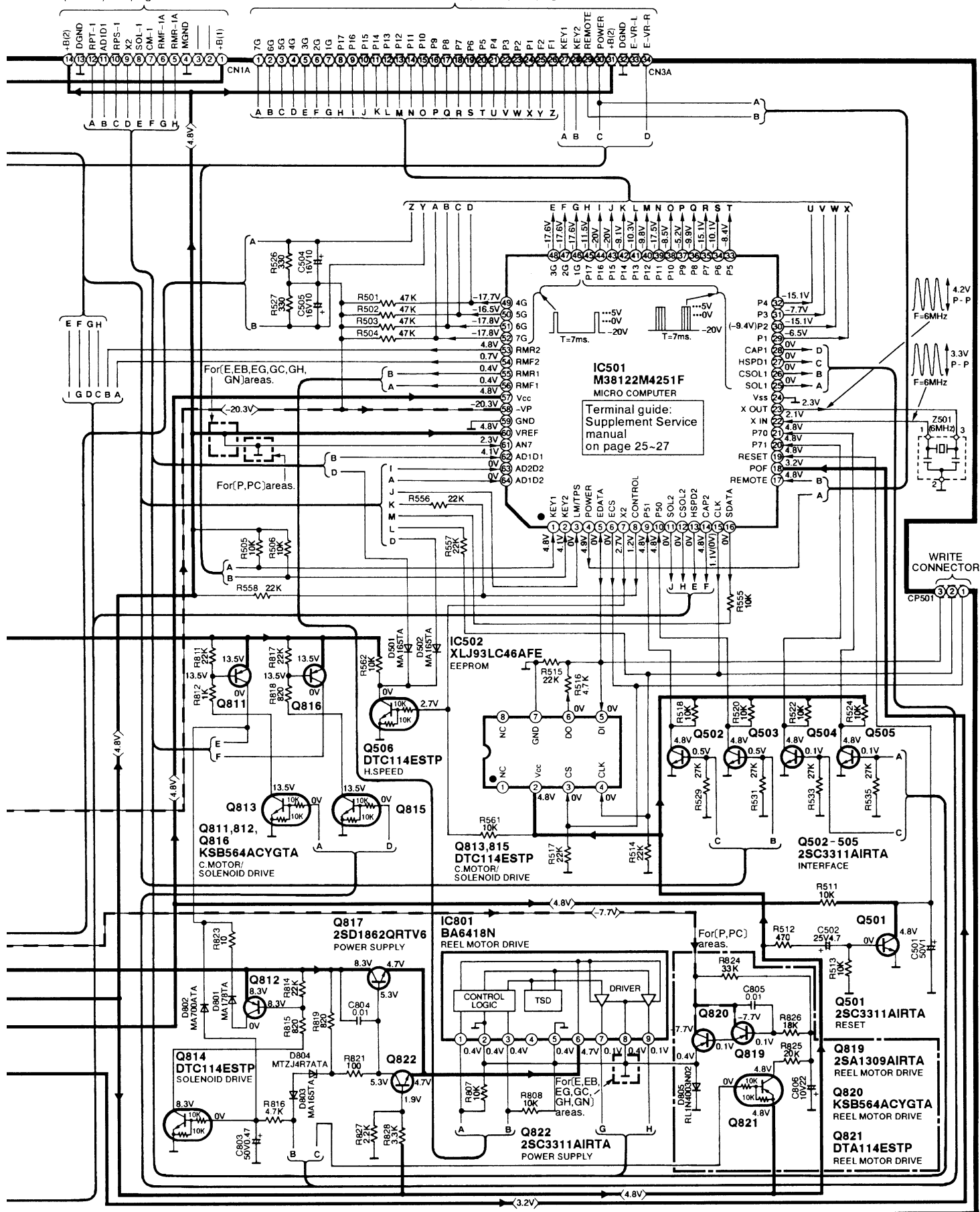
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

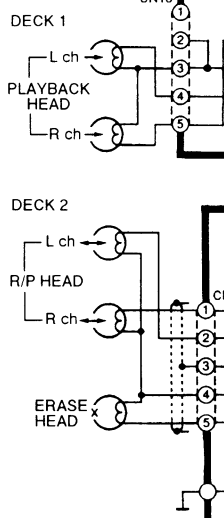
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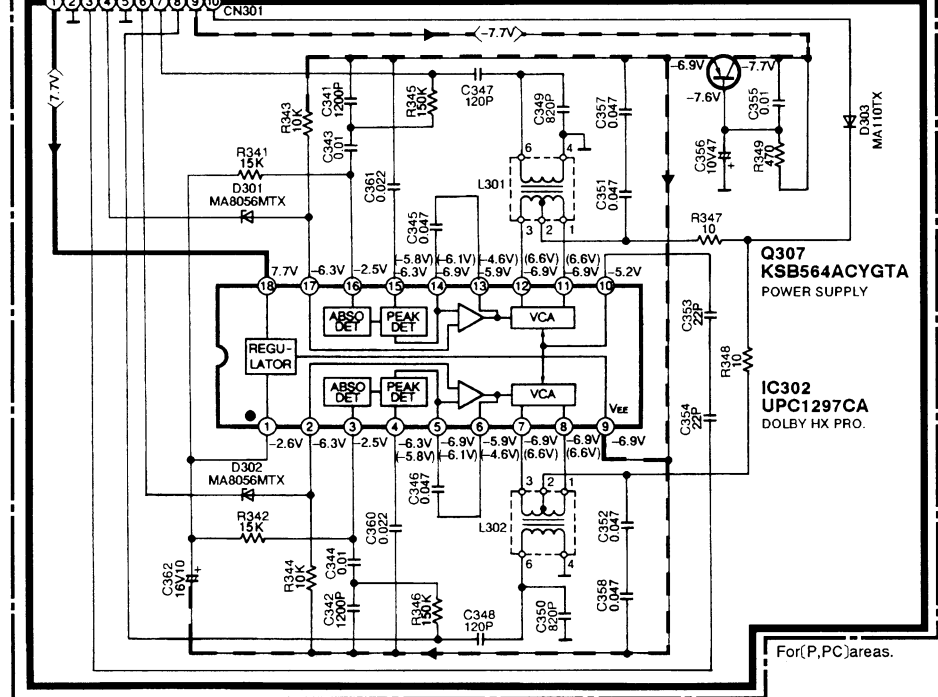
To **F** FL CIRCUIT(CN3B) on page 13

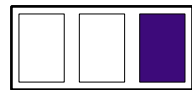
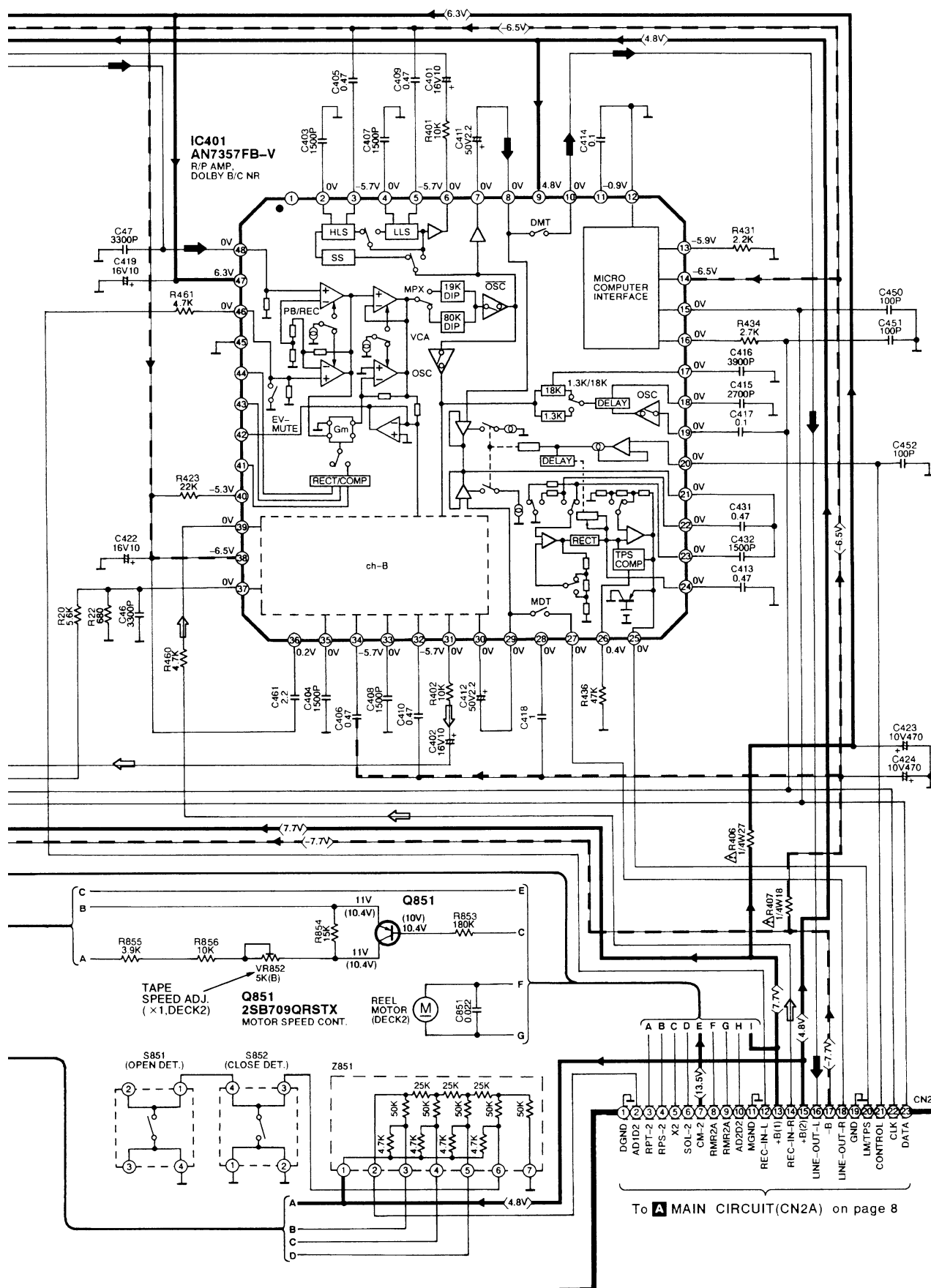


B

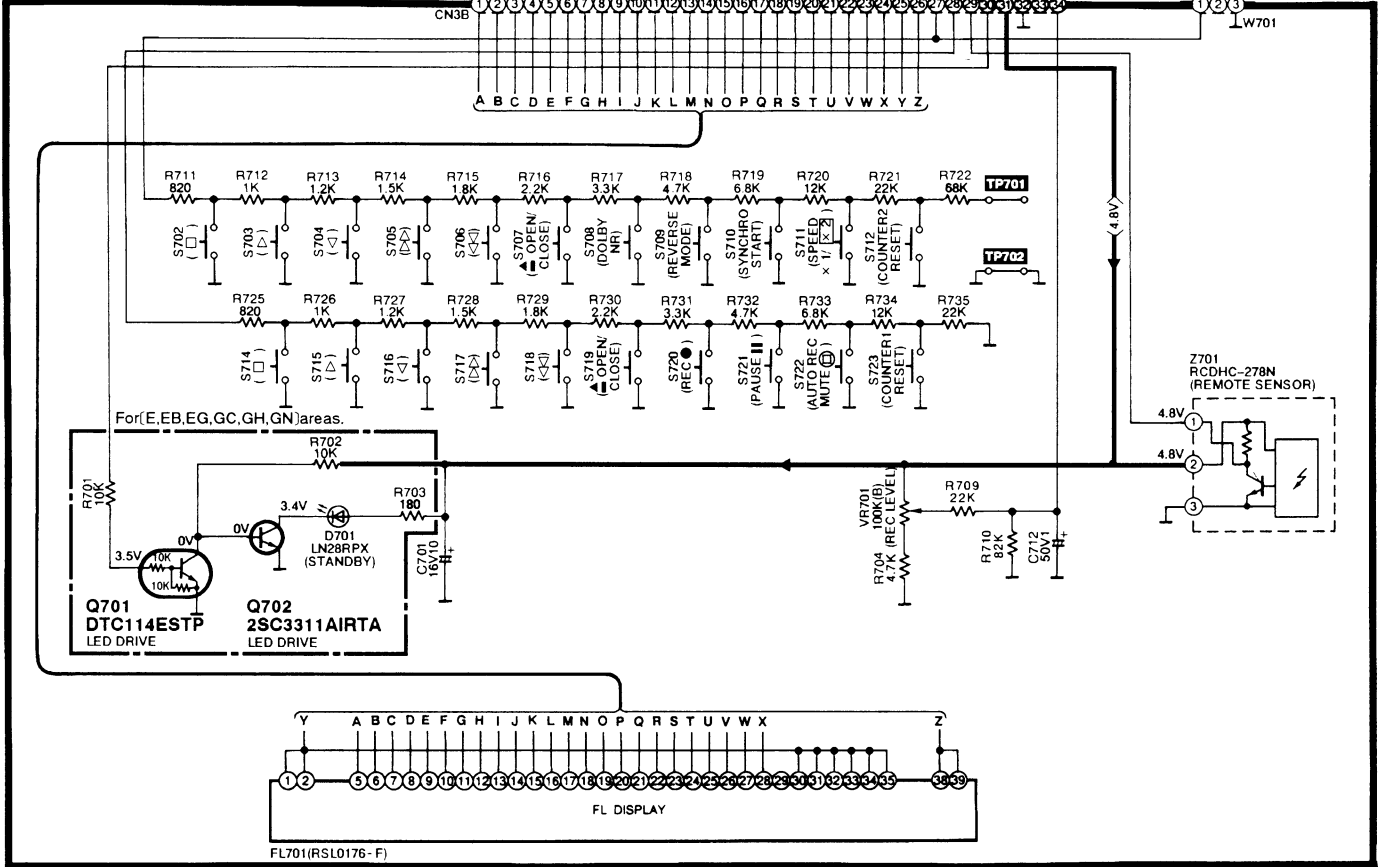


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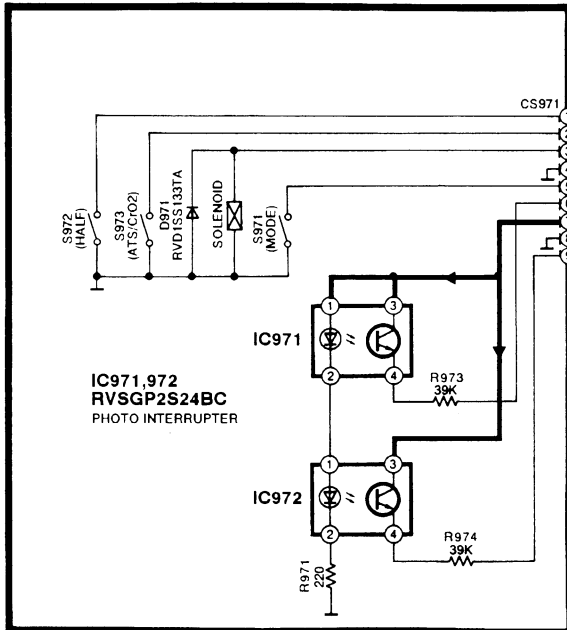




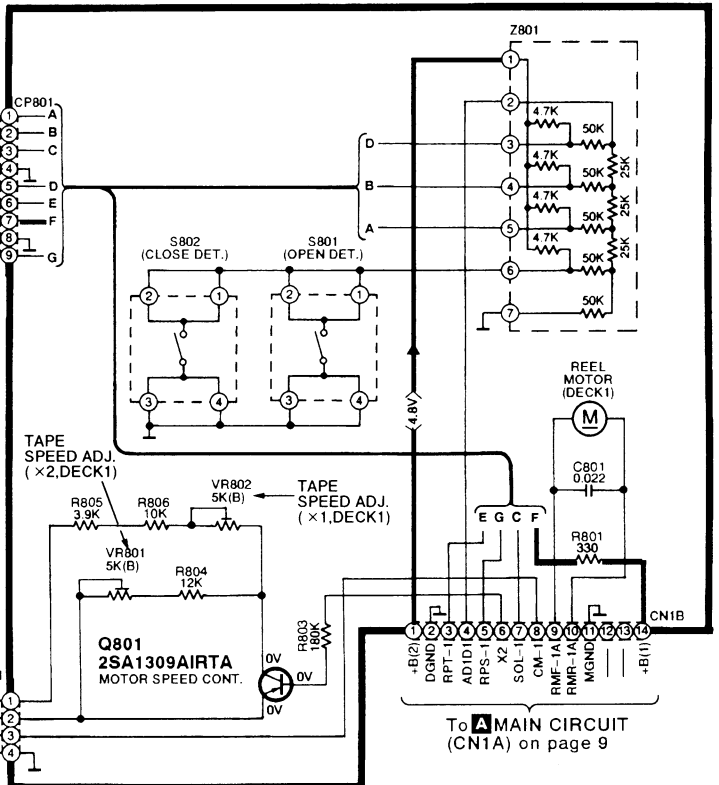
G

F

H



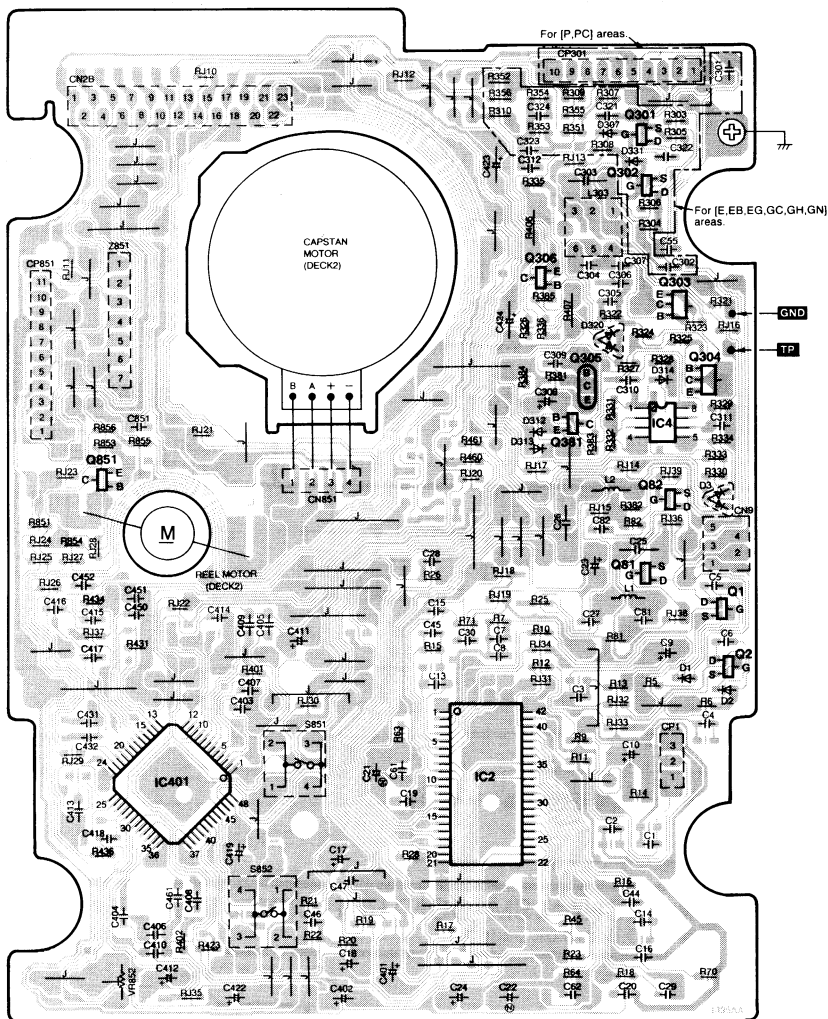
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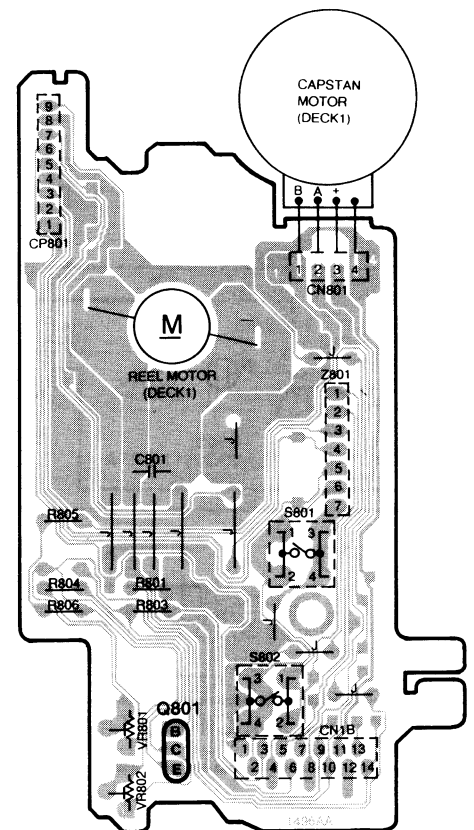
PRINTED CIRCUIT BOARDS

(This schematic diagram may be modified at any time with the development of new technology.)

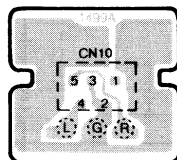
B MECHANISM CONTROL P.C.B. (DECK2) (REP2166A-T...[P,PC] REP2166B-T...[E,EB,EG,GC,GH,GN])



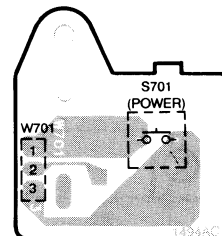
I MECHANISM CONTROL P.C.B. (DECK1) (REP2167A-T)



C CONNECTOR P.C.B. (REX0747)



G POWER SWITCH P.C.B. (REP2165A-S...[P,PC] REP2165B-S...[E,EB,EG,GC,GH,GN])



A MAIN P.C.B. (REP2164A-M...[P,PC]
 REP2164B-M...[E,EB,EG]
 REP2164C-M...[GC,GH]
 REP2164D-M...[GN])

